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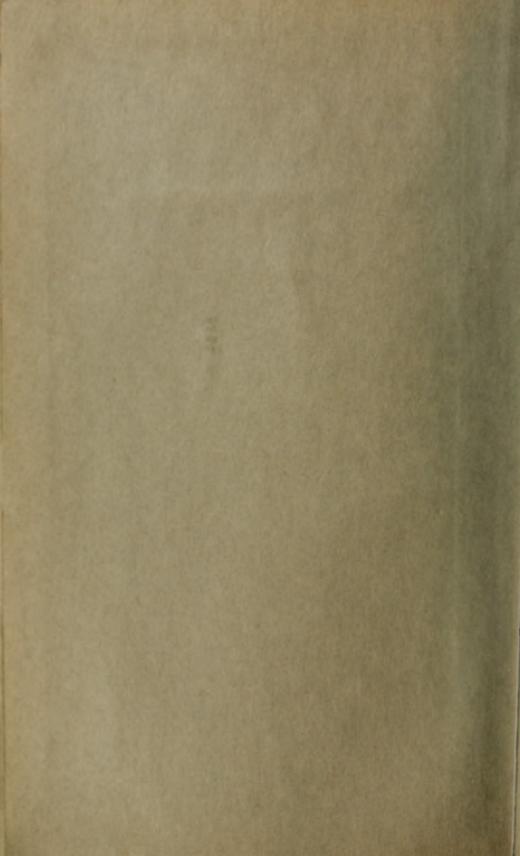
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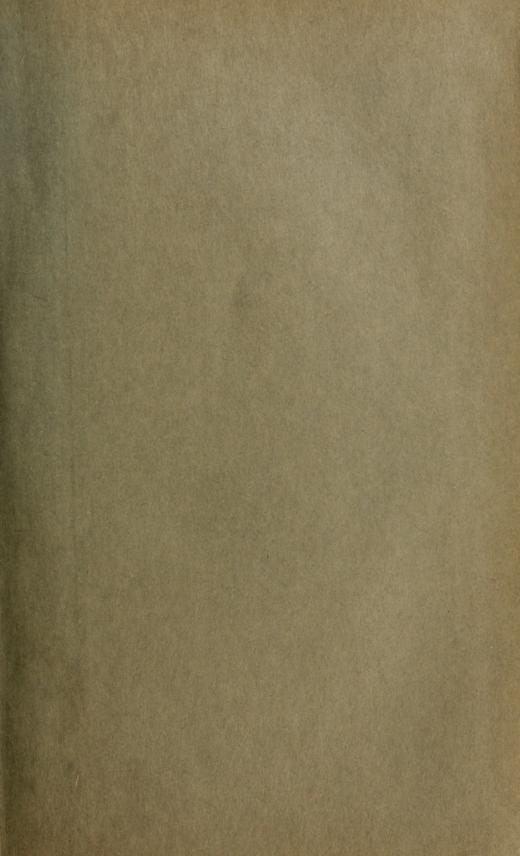
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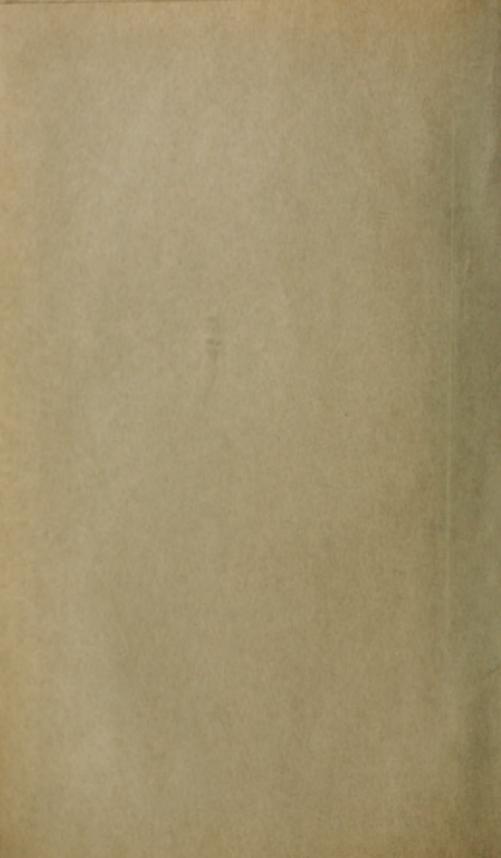
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OF

## FIELD MUSEUM OF NATURAL HISTORY

#### REPORT SERIES

VOLUME IV



Снісадо, U. S. A.

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# ANNUAL REPORT OF THE DIRECTOR

TO THE

## BOARD OF TRUSTEES

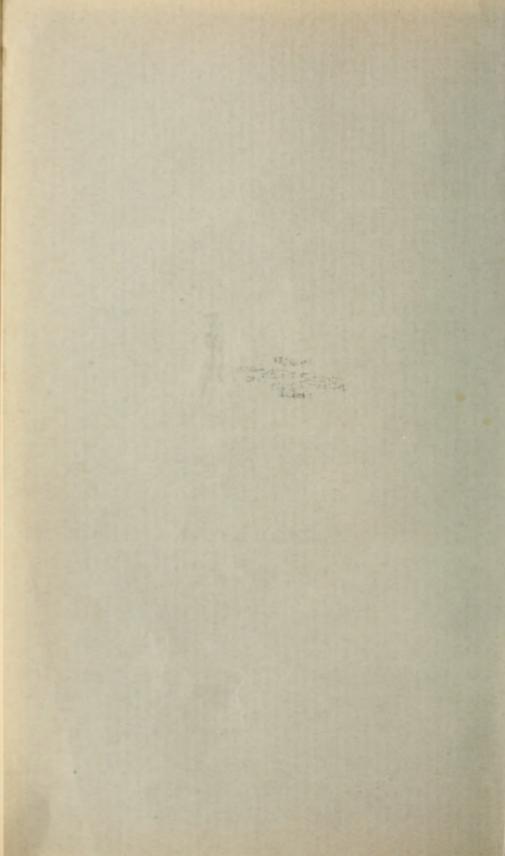
FOR THE YEAR 1910.



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Charles L. Owen, Assistant Curator Division of Archaelogy
Reservoto Laurer, Associate Curator of Asiatic Ethnology,
Albert B. Lewis, Assistant Curator of African and Meslanesian Ethnology.

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Courses I. Millsparch, Curster.

Jusse M. Greenman, Assistant Caroline

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ARTHUR W. SLOCOM. Assistant Curator Section of Immunity
Paleontology.

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WILEBED H. Oscood, Assistant Curator of Mammalegy and Ornithology.

WILLIAM J. GERHARD, Assistant Curator Division of Entomology EDWARD N. GUEREL, Assistant Curator Division of Osteolog

The same

D. C. DAVIES.

THE LOOKEY

Erer Liverscorr, Librarian.

#### ANNUAL REPORT OF THE DIRECTOR.

1910.

To the Trustees of Field Museum of Natural History:

I have the honor to present a report of the operations of the Museum for the year ending December 31, 1910.

Under the proper heading and subheading following, the affairs of the Museum are considered and commented upon in detail, from which will be drawn many gratifying evidences of the steady development of the Museum and of the increase of its usefulness as an agency for popular education and for the acquisition and dissemination of scientific knowledge. Its field of operation has been greatly extended during the past year, especially in the Department of Anthropology, although all of the Departments have shared in the general outward movement. The death of Mr. Edwin Walker, who had been a most serviceable member of the Board of Trustees since its organization, must be chronicled. At a meeting of the Board held October 10th the following was recorded:

"The closing of the life of Edwin Walker, after a protracted and suffering illness, removes from this Board one of its oldest members, whose constant services, especially in matters involving legal ques-

tions, have been of very great value to the Institution.

"Upon the larger interests of Chicago, in which community he had lived and occupied a conspicuous station for many years, and to whose welfare he was patriotically devoted, the death of Mr. Walker entails the loss of another of those strong men to whose wise, forceful, purposeful character Chicago owes its great progress and high place as a municipality. We feel it a most grateful privilege to express our admiration for him as a fellow citizen and as a friend."

During the year two members of the scientific staff have died: Mr. John Farwell Ferry, of the Division of Ornithology, and Mr. Charles S. Wake, cataloguer and bibliographer in the Department of Anthropology. Mr. Ferry was a young man of much promise and of great enthusiasm, and his associates and others in similar work keenly regret the close of the creditable career that undoubtedly awaited this young scientist. Mr. Wake was well advanced in years and a gentleman of unusual culture. He performed services of much value to science, but of a character not calculated to attract public attention.

It cannot be out of place in this report to mention the lamentable adden death of Mr. Theodore Lescher, who had been for several years intimately associated with the staff of the Museum in preparing the plans for the interior arrangement of the new Museum building. A man of rare accomplishments, fine sensibilities, and scrupulous conduct, the sudden ending of his life, full of the promises of high station in his profession, is deplored. The conclusion, for the present at least, of the expedition of Dr. Berthold Laufer to China and Tibet in the interest of the Department of Anthropology, and under the support of the fund provided by Mrs. T. B. Blackstone, is worthy of special mention in view of the brilliant results that rewarded the three years of researches conducted by its accomplished chief. The amount of material, but, what is of greater importance, its character, places the Museum in the first rank among those institutions that have entered this difficult and fascinating territory. It is hoped that a large part of the collections will be on view within a f. v months, and that in the meantime, a number of valuable contributions to the knowledge of Tibet and China reflected by these collections and their capable study will be made by Dr. Laufer, who has accepted the permanent appointment of Associate Curator of the Division of Asiatic Ethnology on the staff of the Museum. While referred to elsewhere, special mention should be made of the generous donations of Mr. Joseph N. Field for prosecuting ethnological investigations in the South Pacific Islands; the contribution of the Standard Oil Company in both funds and material for the reinstallation of Petroleum Hall; and further donation from Mr. Stanley McCormick for the extension of the investigations of the Hopi Indians. The members of the Board of Trustees of the Museum have individually made a number of contributions of money to the Institution during the year. Extensive repairs and improvements have been made in and about the Museum building during 1010. The entire exterior of the structure has been whitewashed and the roof and subordinate foundations, entrances, etc., have been repaired and strengthened in accordance with the recommendations of the Architects, D. H. Burnham & Company. An iron fence has been erected around the building to protect the public walking in the park near the walls from possible falling plaster from the cornice, resulting from constant deterioration. The city telephone service has been extended both for Departmental and public use within the building, and the laboratories and work rooms as well as a number of the exhibition halls have been rearranged and repainted, refloored, etc. One of the most important additions to the facilities of the working force of the Museum has been the renting of botanical and geological laboratories and work rooms in a building on Jefferson Avenue, a short distance from the Museum. This is a well lighted and a well ventilated suite of rooms in a new brick building, and is a very gratifying relief from the dark, cramped, and generally unfit quarters that were provided in the Museum building. In these new quarters the Department of Botany is now engaged with a most competent force in preparing artificial plants, flowers, and fruits for the exhibition series, a number of which have already been placed on view and elicit unusual appreciative comment on the part of both the public and students. The close of the year finds a number of important expeditions in the field. Dr. Lewis in British New Guinea; Mr. Cole in the Philippines, whence he will go to Borneo; Dr. Osgood and his assistant in Venezuela; Dr. Meek in the Panama Canal Zone; Dr. Millspaugh in the Bahamas, and Mr. Smith in Oregon. In addition to these, expeditions are contemplated for botanical investigations and collections in the Tropics of the Pacific and in the Far East; for collections and reproductions among the Hopi; for investigations of the Potawatomi Indians and of the Mound Builders, and for ornithological collecting and sketching on the Island of Laysan. From all of which it is apparent that as satisfactory as the results of the closing year have been in all Departments, the coming year is equally promising.

MAINTENANCE.— The budget approved by the Board of Trustees provided the sum of \$178,320 for the expenses of the Museum for the year. The amount expended for maintenance was \$145,330, leaving the satisfactory margin of \$32,990. In addition to this amount \$49,800 was expended by special authority of the Board for collections, expeditions, and exhibition cases, which brought the total to \$195,130. A further sum of \$20,865 was subscribed by friends of the Museum for special expeditions, material, and new installations.

LECTURE COURSES.— Two courses were given as usual, in the Autumn and Spring, bringing the number of courses given by the Museum to thirty-three. The attendance at these lectures has been steadily good, and the increase in the attendance of students and teachers has been observed with much satisfaction. The ready co-operation of well-known scientific men and lecturers in this work is gratifying, and occasion is here taken to thank the different gentlemen who participated in the courses.

Following is the Thirty-second Free Illustrated Lecture Course, with the subjects and lecturers, delivered during the months of March

and April, 1910:

· Philip Meann or Namen History Reports, Vol. IV.

March C. "Snapping Laye Game on the Ross evelt Hunting Truil." Mr. A. Rackistic Dugmere, New York City.

March 19 "The Call of the West."

Mr. C. J. Blanchard, Statistician, U. S. Rodbmatton

Maria and Siberia."

Prof. Roland B. Dixon, Harvard University.

March 16 "Cur Forests and What They Mean."

Dr. Charles F. Mill-paugh, Curator, Department of Botany.

Arrib . "Chff Dwellers and Pueblos."

Armi G. "Some Alaskan Glaciers."

Prof. U. S. Grant, Northwestern University.

Accil is "For Munting."

Mr. E. S. Rigge, Assistant Curator, Division of I = or tology.

Are: 23 "Hurran Development and Evolution." Dr. Frank Lillie, University of Chicago.

Arril a "The Colorado River."

Prof. O. C. Farrington, Curator, I am moment for objects.

For several the Thirty-third Free Illustrated Lecture Course, with the offers, and beturers, delivered from October 15th to December 15th, 1911.

On the The Rud Life of the Bahamas with Special Reference to the Nesting of the Flamingo."

Prof. Frank M. Chapman, Assistant Curator of Mammalogy and Ornithology, American Museum of Natural History.

Ot 1: "Japane e Mathology as Represented in Their Archa-

Dr. William Elliott Griffe, Ithaca, New York.

O \* 25 "Through Africa with Reserveit."

Prof. J. Alden Loring, Owego, New York, Field Naturalist to the Reservelt African Expedition.

Nov. s. - "Wild Game of Alaska."

Prof. Wilfred H. Osgossi, Assistant Curator of Mannmalogy and Ormthology.

- Nov. 12.— "Plants and People of Mexico."

  Prof. Charles J. Chamberlain, Department of Botany,
  University of Chicago.
- Nov. 19. "Gold Mining in Alaska."

  Prof. Wallace W. Atwood, United States Geological
  Survey.
- Nov. 26. "Material Basis for Perpetuity of the American People." Dr. W J McGee, Washington, D. C.
- Dec. 3. "The Indians of the Province of Esmeraldas, Ecuador."
  Dr. S. A. Barrett, Curator of Anthropology, Public Museum, Milwaukee, Wisconsin.
- Dec. 10.—"The Winning of the West or Home-making by the Government."
  - Mr. C. J. Blanchard, Statistician, U. S. Reclamation Service.

PUBLICATIONS.— During the year eleven publications were issued, most of the numbers being of the Zoölogical Series. The mailing list has been considerably extended in connection with the exchange system of literature with scientific and learned societies.

Following is a list of the publications issued and a table showing their distribution during the year:

- Pub. 139. Zoölogical Series, Vol. VII, No. 8. Description of two New Pulmonate Mollusks with a list of other species from the Solomon Islands, collected by Dr. George A. Dorsey. By William Healey Dall. 10 pp., 1 plate, edition 1,500.
- Pub. 140. Report Series, Vol. III, No. 4. Annual Report of the Director to the Board of Trustees, for the year 1909. 107 pp., 14 illustrations (half-tones), edition 2,500.
- Pub. 141. Zoölogical Series, Vol. X, No. 2. Diagnoses of New East African Mammals, including a New Genus of Muridæ. By Wilfred H. Osgood. 10 pp., edition 1,500.
- Pub. 142. Zoölogical Series, Vol. VII, No. 9. A Synoptic List of the Fishes known to occur within fifty miles of Chicago.
  By S. E. Meek and S. F. Hildebrand. 105 pp., 12 zinc etchings, 52 half-tones, edition 1,500.
- Pub. 143. Zoölogical Series, Vol. X, No. 3. Further New Mammals from British East Africa. By Wilfred H. Osgood. 8 pp., edition 1,500.

- I FILLD MUSICA OF NATURAL HISTORY REPORTS, VOL. IV.
- Publish Zerleyn al Series, Vol. VII, No. 10. Notes on some Clerada of Middle and North America with descriptions of New Species. By A. B. Wolcott. 63 pp., at places, edition 1,500.
- Paris 143 Geological Series, Vol. III, No. 8. Meteorite Studies III. By Oliver Cummings Farrington. 28 pp., 4 half-tone plates, 1 zinc plate, edition 1,500.
- Part 146. Ornithological Series, Vol. I. No. 6. Catalogue of a Collection of Birds from Costa Rica. By John Farwell Ferry. 24 pp., edition 1,500.
- Pub. 147. Ze degical Series, Vol. VII, No. 11. Batrachians and Reptiles from British East Africa. By Seth Eugen-Meck. 11 pp., edition 1,500.
- Pub. 148. Zoological Series, Vol. VII, No. 12. Notes on Batrochians and Reptiles from the Islands North of Venezuela, Pr. Seth Eugene Meek. 4 pp., edition 1,500.
- Pub 149. Zocogical Series, Vol. X, No. 4. Mammals from the Coast and Islands of Northern South America. By Wilfred H. Osgood. 8 pp., 2 half-tone plates, will from 1.500.

The Museum exchange list now numbers 1,283 names, of which the are in foreign countries and 601 in the United States and its 1000 m tons.

The following table shows the number of exchanges with each of the foreign countries:

Ark nume Republic	1.2	France .	191
. \	24	Cermany	-646
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Contrat America	6	Greece	2
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C** : 1;	2	India	36
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Fin Lini.	1	New Brunswick	. 1

JAN., 1911.	Annual	REPORT	OF THE DIRECTOR.	II
New Zealand		. 6	Spain	5
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Geological .			339	
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Zoölogical .				
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Alabama		. 2	New Jersey	16
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		. 28	North Carolina	6
		. 12	North Dakota	I
Connecticut .		. 23	New Mexico	2
Delaware		. 2	Ohio	17
District of Columb	oia	. 70	Oklahoma	2
Florida		. 2	Oregon	I
		. 57	Pennsylvania	41
w		. 13	Rhode Island	5
			South Dakota	2
T		. 13	Tennessee	2
		. 7	Texas	3
		. 2	Utah	2
		. 3	Vermont	4
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			Washington	6
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New Hampshire		. 4		
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The religioning table shows the number of domestic exchanges assume the different publications:

Ver ending it	951
REPORT OF THE PROPERTY OF THE	4.80
	533
	100
	150
11	Total .

The Library now contains \$4,270 books and number the chambuted as follows:

Grand Many	37,100
And be pringered Western	2,695
H to me difference	5290
Chest of all literary	0.337
And good to core	2,141
1 - ram of Expension Interature	793
	11.170

The additions for the year were 2,026 books and panipular - 1; by suschase and 2,392 by gift and exchange. The purchase of books. having been limited to a portion of such works as were in only to let, was less than the previous year by 682 books. The many the were largely confined to gifts from friends of the Milliam and exchanges from kindred institutions. The most notable gut of the year was received through the generosity of Mr. W. J. Chalmorof Mr Buron L Smith, who presented to the Museum the Head will trin of to if that included also a very complete set of monoparts on head resures that are almost priceless because of their more veragrad that seek sould urvey reports and transactions that an All safety in tilling in and completing sets in the library, and a number of by but of a will be noted as exchange material. Other valuable are more respect from the following: Mr. Eric Boman, Puro, Antripute ode la region andrie, a volumes; Mr. and Mrs. E. W. Cramor. Change Assistant Buris of America, 7 volumes, 1840-44; Mr. Chr. on B. M. etc., Philadelphia, Antiquities of the St. Francis, White and Black room, Arbar as, Mr. Martin A. Ryen en, Chicago, Carragio In there and Wallington Publications, 7 volumes; Mesrs, Marshall H. Stelle and George E. Heve, New York City, Contributions to south America Archestege, a volume, Mr. E. Thurston, Madra, In b., Codes and Tribes of Stathern India, 7 volumes. As molean Notes of the rev South of Oxford hire, Oxford, England: Batavianoth Chencer das Van Konsten en Wetenschappen, Batavia, Java; Kir-



WHITE PINE MONOGRAPH.
North American Timber Series.

Constant of arthural

Magyar Termeszettu-domanyi Tarsulat, Budapest, Hungary; Institut de Botanique de L'Université, Genève, Switzerland; India Archæological Survey, Calcutta; Naturwissenschaftlicher Verein für Schleswig-Holstein, Kiel; Royal Cornwall Polytechnic Society, Falmouth, England; Kungl. Vetenskaps Societeten, Upsala, Sweden.

The list of accessions will also show gifts that are useful additions to the library. The work of correcting duplicate call numbers and cataloguing accessions received in the early years of the library was continued during the year. There were sent to and returned from the Newberry Bindery 876 books, periodicals, and publications of learned societies. For the several card catalogues 19,662 cards were written and filed. Twelve installments of the John Crerar Library cards were received, but were only partly distributed owing to the crowded condition of the card cabinets. The two units or sections of the steel cabinet received in the beginning of the year have proven entirely satisfactory. A sufficient number of cards had accumulated, however, to more than fill these sections before they were received.

DEPARTMENTAL CATALOGUING, INVENTORYING, AND TABELING.— The Curator of Anthropology reports 1,625 catalogue cards written and recorded in the Department inventory, numbering 33 volumes. The most important collections catalogued have been those from the Banawi and Igorot tribes, secured by S. C. Simms on the 4th R. F. Cummings Philippine Expedition; the Ilongot collection (partially) from Northeastern Luzon, made by the late Dr. William Jones; and the Etrurian archæology collected by Mr. E. E. Ayer. The classified tribal lists have been added to, and the card catalogue for the same has been kept up. The work of labeling has gone on at about the same pace as during 1909, 3,755 standard black labels of various sizes were printed for the Department, of which 2,030 were for Northwest Coast Halls, 1,575 for the East Court, 85 for the Egyptian Hall, and 66 for California Hall.

The cataloguing of the specimens received in the Department of Botany has been kept up to date. The entry books of the Department number 56, in these 297,810 specimens have so far been catalogued, 29,589 of which were entered during the past year. The cataloguing of herbarium specimens progressed satisfactorily throughout the year. Besides organizing the current accessions the Wahlstedt herbarium, consisting of 17,555 specimens, has been completed; 2,025 sheets have been added from the Rothrock herbarium, and 5,250 from that of the University of Chicago. About 3,000 cards have been written and added to the indices of the Department and the index books of the collections kept up to date.

Comments the large number of specimens received during the year r has not been two able for the Department of Geology, as has notally been the case, to complete within the year the cataloguing of all cook mens precised. Nevertheless, a considerable portion of the work has Even done. To the card catalogue of the Department Library cardhave been added during the year corresponding in number to addle tronal books received. The number of cards thus added is 516, making the present total of the Departmental Library catalogue cards, 2,332. To the Department photograph albums 128 prints, chiefly obtained by the Mu cum expedition to Utah, have been received, making a total of 2,500 prints now in these albums. A considerable amount of labor has been performed by the Assistant Curator of Invertebrate Paleentology in the direction of completion of records by identifying specimen, of invertebrate fossils previously catalogued but not identified. About a thousand specimens of Tennessee fossil sponges and about one handred a ceies contained in the Logan collection of Cretaceous fossils have thus been identified and recorded. The principal work of labeling has been that of the collections in Hall 67, marbles and building stones, and Hall 70, coal, and hydrocarbons. These collections have been labeled throughout, the number of labels prepared and installed being about four hundred for each hall. A number of these were large, de criptive labels. Complete framed labels, twenty-eight in number, were provided for the large specimens on bases in Hall 60. About sixty labels have been printed and installed in Hall 68, clays and sands, and for the remainder of the collection hand-written labels to the number of about five hundred have been provided, so that use may be made of the collection until printed labels are completed. Other miscellaneous labels for the economic collections to the number of about sixty have teen printed, and about one hundred and fifty paleontological labels chiefly for the fossil sponges of the Head collection. The total number of printed label forms provided and distributed during the year was, therefore, about one thousand. Copy for four hundred and seventyfive labels was in addition prepared and has been placed in the hands of the proper.

catalogum, and moding of parameter in the Department of Zoology has been attended to so far as time and pressure of other business would permit, but it has been only possible to do little more than keep pass with new accommons in this work. Approximately 1,300 catalogue entries have been made, including 600 in Mammalogy, 600 in Ornithology, and 40 in O dogy. Of the specimens thus catalogued, the mammals have been recorded in the systematic card catalogue.

The year's work on catalogues and inventorying is shown in detail below.

	No. of Record Books.	Total No. of Entries to Dec. 31, 1910.	Entries during 1910.	Total No. of Cards Written.
Department of Anthropology .	33	114,280	1,272	114,653
Department of Botany	56	297,810	29,589	
Department of Geology	20	112,495	9,414	6,763
Department of Zoölogy	40	87,830	5,624	28,718
The Library	13	80,037	8,000	109,962
Section of Photography	6	87,139	6,377	

Accessions.—Most of the accessions acquired during the year by the Department of Anthropology were gifts. Through Mr. R. F. Cummings more than 4,000 ethnological specimens from Igorot and Ilongot tribes of Northern Luzon, the Negrito of Bataan and the Bukidnon and Bagobo of Mindanao, were added to the Philippine collections. Full notes, photographs, and measurements accompany the collections. Mr. Barbour Lathrop, of Chicago, presented a magnificent royal sarong collected by himself in Jokjokartar, Java. Mr. T. A. Hagerty donated a bronze figurine of the Goddess Isis; Mr. E. E. Ayer, an Etruscan jar. A collection of spears, arrows, knives, etc., from Congo and the Soudan; Etruscan burial urns of terra cotta and alabaster, as well as vases of terra cotta, and gold and silver jewelry from Kabyle tribes of Algeria. Africa, was presented by Mr. Stanley Field, Mr. Edward E. Ayer, Mr. Watson F. Blair, Mr. George Manierre, Mr. George F. Porter and Mr. Richard T. Crane, Jr. Through Mr. William J. Chalmers and Mr. Byron L. Smith, the Illinois archæological material was increased by the W. R. Head Collection. Mr. Homer E. Sargent enriched the Salish collections by the addition of 75 specimens, collected by J. A. Teit. The gift comprises baskets, bags, matting, clothing, cradles, necklaces, robes, pipes, toys, spears, stone implements, shields, etc. From Dr. Seemeyer of the National Ethnological Museum, Budapest, was obtained, by exchange, a lot of photographs illustrating the physical types and home life of the different peoples of Hungary. Of the purchased accessions of special interest and great value in the study of Belgian archæology is the collection of 725 objects purchased from Baron Alfred de Löe of Brussels. This collection represents material from flint quarries and workshops, casts of objects of the Bronze and Iron Ages, pottery of the Belgian-Roman Epoch, and a number of originals of the Frank Epoch. Twenty Navaho ceremonial masks were secured from J. L. Hubbell of Ganado, Arizona. Museum funds in the hands of Alfred R. Brown brought together a collection

of the first Andrew Corner Andrews and Nicobar I land , which energy to the the property mail collection from the enclands.

The commission of the firm that have been added to the organized that around furn, the year are the following: J. C. Blumer, 350; Broad-[14] T.J. J. 199, W. C. Charek, Oregon, 187; R. A. Divon, Texas, 143; W. W. E. J. Ger, Atlantic States, 68, A. D. E. Elmer, Philippine 1 Let. 184. Godescal Survey of Canada, Dominion of Canada, 141. A. A. Heller, Montana, Utah, Nevada, and California, 698; O. E. Lie of the Elmon, Indiana, and Michigan, 118, New York Botanical the ber Fletch, Bahamas, and West Indies, 2,529, C. R. Orcutt, More at 1, 2011, Peakedy Musum, European Moses and Lichens, 2, 592; H. H. Seath, Georgia, 487, H. A. Towne, Washington, 107; University of California, Menton, 476; United States National Museum, Idaho, Oregon, Wallington, etc., 617. In addition to the elacor sions there have been a large number of smaller ones which appear in the detailed be of we remain this Department. Accessions of economic material have been very small, merely a few items of added interest. Additions to the organical larbarium during 1010 arranged by localities are A sensing the fell many tables

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	Added to Herbarium in 1910.	Total now in Herb'm.
North America:		
United States (in general)	II	11
Alabama	168	961
American Plains	5	93
Arizona	515	7.149
California	652	17,421
Santa Catalina Island	I	24
Colorado	11	6,765
Connecticut	25	306
Dakota (in general)	12	32
Dakota (North)	158	182
Dakota (South)	19	103
Delaware	268	1,098
District of Columbia	18	1,833
Florida	1,592	17,579
Florida Keys	139	638
Georgia	129	4,321
Idaho	362 .	1,284
Illinois	514	16,601
Indiana	581	4,021
Indian Territory	106	215
Iowa	4	1,286
Kansas	29	250
Kentucky	6	650
Louisiana	46	991
Maine	42	1,139
Maryland	47	780
Massachusetts	168	2,220
Michigan	139	2,220
Minnesota	98	687
Mississippi	9	1,869
Missouri	320	971
Montana	205	3,187
Nevada	245	646
New Hampshire	102	1,079
New Jersey	49	1,541
New Mexico	3	2,269
New York	34	4,806
North Carolina	322	1,449
Ohio	98	1,460
Oklahoma	5	166
Oregon	587	5,500
Pennsylvania	5°7 88	6,579
South Carolina	72	619
Rhode Island	2	_
Tennessee	221	474
Rocky Mountains		902
Rocky Wountains	4	731

### I Frie Merick of National History Reports, Vol. IV.

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											Added to Herbarium in 1910.	Total now in Herb'm.
Great Britain (in genera	1) .											1,290
England											1,387	1.495
Isle of Wight .											3	33
Ireland											9	9
Scotland											364	365
Hebrides Islands	•		•	•							I	I
Arran Islands .					٠	•			•	•	Ī	I
Wales		•			•		·			•	28	28
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Europe												
Austro-Hungary .		٠			•		٠	٠	٠	•	944	5,802
Belgium		٠					٠			٠	113	183
Crete Island						٠	٠				5	5
Cyprus Island				٠							I	I
Denmark											37 I	372
France					٠						2,072	3,536
Germany											1,478	5,529
Greece											2 I	489
Holland											I	14
Italy											700	1,617
Corsica											46	47
Sardinia											50	52
Sicily										•	24	116
Norway											904	996
Portugal											4	5
Russia											24	1,255
Finland	·		•	Ĭ.							11	19
Lapland	•	·	Ċ	·	•		·		·	•	95	106
Poland	•		•	•	•			•		•	6	48
Roumania	•				•	•				·	4	4
Spain	•				•	•		•	•	•	197	243
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Switzerland	•			•	•	•	•				721	1,736
Asia												
Afghanistan											I	2
Asia Minor												
Turkey											I	179
Ceylon											2	8
India											ΙΙ	738
Java											I	24
Johore											8	8
Persia											I	13
Africa (in general)											5	3,837
Algeria											58	66

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In the Detartment of Geology the most important accession by mit was that of the Head Collection of fossils. This collection, numberme About eight thou and specimens, was kindly presented by Messrs. Willsom I Chalmers and Byron L. Smith. The collection is especially way runt for it representation of North American Paleonoic sponges, a class it is probably the largest and finest collection ever note. If the large numbers of Tennessee sponges of Niagara age there is a the representation of sponges from the Chicago area and of Trenton was a m Dison, Illinois. Most of these have been obtained from I will be not injer accessible. Much of this material has never be a it is it is a will afford new genera and species. Among single spec-· · · Allege one of Astraoopongia showing the star-like structure of et a fall that decrees pecial mention. Additional specimens to the cur's full-ut three thou and compried in the collection consist the first rate for ills from various localities in the Mississippi V " are I make be much excellent exhibition material, among which english responsible fine lab of Le Grand, Iowa, crimoids and Lone ers mere if feed classificant the Coal Measures. A series of fee II -- Tit: milio Flore and be hof Colorado gives a representation of this



GROUP OF GORILLAS (Gorilla gorilla). From the Congo Region, Africa. Male, female, and young,

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UNIVERSITY OF ILLINOIS
URBANA

occurrence hitherto lacking in the Museum collections. An important series of books was also obtained with the collection in number about three hundred. Especially important are works relating to fossil sponges of which a very complete collection was obtained. Other books obtanied with the collection were of special value in completing sets of Geological Surveys previously possessed only in part. Among other gifts of importance the following may be mentioned: A complete series of ores and specimens representing various stages of concentration of the copper ores of Bingham Canvon, Utah, donated by the Utah Copper Company; a large amethystine twin crystal of calcite from Joplin, Missouri, presented by F. P. Graves; a section of the Shrewsbury meteorite presented by F. Justice Grugan; three slabs of Westfield, Massachusetts, verd antique of standard museum size presented by the Westfield Marble and Sandstone Company; fifteen specimens of sand-barite concretions presented by Prof. C. N. Gould; a series of gold and silver ores of the Porcupine and Cobalt districts of Canada, presented by Thomas H. Rea; a large slab showing fossil brachiopods and worm tubes in relief, presented by A. G. Becker; five specimens of polished Smithsonite of gem quality from Mexico, presented by Charles H. Beers; and a large map of Colorado presented by U. A. Dohmen. By exchange with the British Museum representative sections of the Eli Elwah and Uwet meteorites were obtained, and by exchange with the University of Bristol, Bristol, England, 121 specimens representing 63 species of Paleozoic invertebrate fossils from various localities in Great Britain. From Rev. P. E. Nordgren 56 specimens of invertebrate fossils representing 15 species of Carboniferous and Devonian age from localities in Pennsylvania and New York, were also received by exchange; from A. G. Becker, 82 specimens representing 15 species of Devonian invertebrates; from H. G. Shelby, 12 specimens representing 3 species of Iowa crinoids; and from Julius Böhm a fine specimen of the hydrous beryllium borate hambergite from Madagascar, all by exchange. The most important purchase was that of the entire mass of the Ahumada, Mexico, meteorite. This is a pallasite weighing 116 pounds and is the only meteorite of this group which has as yet been found in Mexico. An exceptionally fine skull of the Tertiary carnivore Hvænodon, two specimens of gold of unusual beauty and two relief maps, one of the Malaspina Glacier region, Alaska, and one of the State of Illinois, were also purchased. The Malaspina Glacier map is about 7 feet by 4 feet 6 inches in dimensions and has the vertical and horizontal scales the same. It shows a portion of the lofty St. Elias range with innumerable glaciers extending down the valley to the ocean and bays. Of these

the Millson, Chaper is the largest known outside the Arctic and Another region. The model also shows flords, cirques, hanging a Clean, to regard lakes, constal plains, medial, terminal and recessional restance and other features of the region. The map of Illinois is 6 part year's the x feet g inches in size, and the vertical scale is about four they the horizontal. The rather low relief of the prairies is shown as as "I as the terminal and recessional moraines of the continental ice there In contrast with these are the sharply incised streams and organof the driftless area in northwestern Illinois and in the extension of the Ozark Plateau in the extreme southwestern part of the state. Another totographic type is illustrated by the bottom lands of the Missippi and Illinois flood plains. The accessions by collection include 133 specimens of the rare minerals and feldspars of Maine collected by the Curator, 40 specimens skeletons and skulls of fossil Tertiagy vertebrates collected by the Museum expedition to Utah and 2,320 specimen fossils Ordovician and Devonian invertebrates collected in Iowa by the Assistant Curator of Invertebrate Paleontology.

The total number of specimens of mammals and birds added to the collections is 1,908, of which 1,438 are birds and 530 mammals. A large collection of Gorillas and Chimpanzees, secured from J. F. G. Umlauff of Hamburg, Germany, forms a very important addition to the exhibits of mammals. It consists of seventeen specimens of several species and varieties; most of which are accompanied by complete mounted skeletons. It is undoubtedly the largest collection of African Anthropoids in this country. In the Division of Ichthvology and Herretology the most important addition were 350 fishes from British Guiana, received in exchange from the Carnegie Museum, and which were collected last year by Dr. C. H. Eigenmann. Dr. Frank Billings and Mr. F. G. Hartwell presented a skin of a large saw fish from Tampico, Mexico, and Dr. Billings also presented the skin of a Tarpon from the same locality. A small but interesting collection of shells has received as a gift from Rev. P. E. Nordgren. In the Division of Enternal by the additions consist of local insects collected by members of the tall.

Every we were followers. In September, Dr. Berthold Laufer in his this labors in China and Tibet under the Blackstone fund with the transportant to comprising to cost objects. The ethnology of each country, with the ming and explaining that of the other, properly arranged, will have all what of thought development and the most important to turn and enhance of thought development and the most important to turn and enhance in Eastern Asia. Returning to the Philippines at the the of the continuous the the Cummings Expedition, F. C. Cole began work

among the Bukidnon of North Central Mindanao. A collection of more than 700 pieces, with photographs, was made from that rapidly changing people. Minor collections were secured from neighboring Mandaya and Manobo tribes. A representative collection and many photographs were obtained from among the Negrito and Bataan. Among the Bagobo, dwelling in four districts around Davao Bay, Southern Mindanao, a collection of 600 pieces fully illustrating their life was made; in addition 12 dozen photographs were taken and measurements made of 50 individuals. Collections are now being made among the Moro of the great Cotabato Valley. Dr. A. B. Lewis proceeded from Huon Gulf, German New Guinea, to Humboldt Bay in August 1909, and thence along the coast to Angriffs Hafen, visiting the coast villages as well as some toward the interior. Using Eitapé, Berlin Hafen, as a base, for a couple of months, the neighboring villages were visited, resulting in a collection of 600 specimens with about 80 photographs. Going then to Alii Island, Seleo, Angel and Tumleo Islands were studied, their inhabitants being pre-eminently manufacturing and trading peoples. From Eitapé a trip was made along the coast westward as far as Aissano, which vielded interesting collections and photographs. From Herbertshöhe, Dr. Lewis went with the government expedition to the south coast of New Britain, visiting en route many north coast villages of that island. Landing at Cape Merkus (Arawe) two months were spent in visiting native villages along the coast, for forty miles in each direction. Returning to Huon Gulf, a stop of two weeks was made at Bukaua and neighboring villages. Then, via Finsch Hafen, Sattelberg, at an altitude of 3,000 feet, among the mountains was visited. Here are Papuan peoples quite distinct from the Melanesians of the coast. Photographs were made and a small collection secured from the Hube, a cannibal tribe living about 100 miles inland. From Friedrich Wilhelms Hafen short excursions were made on Siar and Rageta Islands. In May, Potsdam Hafen was reached. Native villages and Vulkan Island were visited, after which headquarters were established on Hansa Bav near Awar and other native towns, forming a group of the highest type of culture to be found on the coast of German New Guinea. A month was spent in coast villages east and west of Potsdam Hafen. After some time spent in various native villages, both on the coast and inland, on August 9th, the Kaiserin Augusta River was entered on the steamer Siar. Only a portion of the eight days spent on the river was given to collecting. A study, however, was made of the culture along its banks. After many delays, due to various causes, Herbertshöhe was reached near the end A second of the souther and October were spent in packing collectors of the south industries and visiting the Sulka country at
Most and the neighborhood of Mt. Varrin. Very rare Sulka and
Rasson in Local other things were obtained. Early in November
to Local it for the British Solomon Islands. He has made a caretill trained the culture of the e-different regions, Berlin Hafen and
He a Gult in German New Guinea and the southwest coast of New
Bursan, also full collections in these regions, supplemented by many
of a ratio. Many scattering specimens have been secured from
the regions which supplement the fine collections already possessed
to the Minimum.

The Dendrologist has completed his work in northern Georgia transpars in from that field 300 elements toward the North American Perceire measurable now preparing for installation. He then proceed to the Pacific Coast where he will continue uninterruptedly in the field until he has accured the elements of the species to be represented from the region west of the Rocky Mountains. His first carload of paterial from the Coast has already reached the Museum. Together with his dendrole, and work he is making general collections for the memic and herbarium series. Roy A. Dixon made a trip to Texas. The ting in Walker, Montgomery and Harris counties; he secured 143 to 100 for the herbarium and 477 duplicates for exchange. O. E. Liming, Jr., continued his local collecting, returning 128 specimens for the herbarium and 470 duplicates for exchange.

During the latter part of the summer, a number of large feldspar prime in Maine were visited by the Curator of the Department of God yo for the purpose of securing specimens of the rare minerals containe I in the permatites and a series illustrating the feld spar industry. Charre in Auburn, Poland, Hebron, Norway, Georgetown and Topshow were visited and from nearly all of them valuable material was of the At Poland the rare good fortune was had of being present wish one of the most valuable pockets of gem tourmaline ever found may open it. The opportunity was improved to collect series of the a stated mineral, and some steps were taken toward securing some of the seen material at a later date. Some excellent specimens of if the and of the rare mineral herderite were also obtained at this Latter. At Georgetown some large specimens of white and ye low The results to land at Hebron rare forms of columbite, triphylite. or Let' reace numerals. At all the quarries typical specimens of the till the unit to matter minel were obtained and at the adjoining mill turn in grades of the ground product. A striking ceries of trap

dikes in granite was also collected, one of the slabs being 26 by 14 inches in dimensions with a dike three inches in width traversing it. Assistant Curator of Paleontology and party spent about three months in northeastern Utah collecting Eocene mammals. Search for specimens was first made in clay strata near Vernal which had vielded some good material earlier to collectors, but no satisfactory returns were obtained by the Museum party. In the adjoining sandstone ledges, however, good showings began to be discovered and these were worked with excellent success during the remainder of the stay. Moreover the fauna proved to be different from that which had been obtained in the clavs. The horizons worked ranged from the lowest to the upper measures of the Uintah formation in a portion of the so-called "Uintah desert," lying in the basin of the White River. Most of the fossils were found at levels of from 700 to 800 feet above the river. Owing to the arid conditions work was difficult and slow, since much time had to be consumed in hauling horse-feed and other supplies distances of thirty and more miles, and some of the work had to be done from a dry camp. Furthermore, owing to the thickness and toughness of some of the ledges, considerable drilling and blasting were necessary in order to secure specimens. Representative specimens of at least ten Eocene vertebrate genera were obtained, belonging mostly to the amblypods and titanotheres. Of the amblypods the best specimen obtained was a skull nearly three feet in length of the six-horned Eobasileus. skull will make a striking exhibition specimen. Another form of which a good representation was obtained was Dolichorhinus. This animal seems to have been an aberrant branch of the titanotheres and is known only from the Eocene. Its skull is of peculiar and striking form, being shaped somewhat like that of the horse but with a cranium nearly as long as the face. No considerable part of the skeleton of the animal has ever been found before, but from the material collected by the Museum party it is probable that two practically complete skeletons will be secured. Another interesting find was that of a fine crocodile skull about two feet long and a lower jaw of a creodont (early carnivore) about sixteen inches long, indicating an animal larger than a polar bear. A preliminary list of the material obtained is as follows: Uintatherium. two skulls, one pelvis; Eobasileus, one skull; Dolichorhinus, two skeletons, six skulls, three lower jaws; Telmatherium, seven skulls, five lower jaws; Palaeosyops, two skulls, two lower jaws; Mesonyx, incomplete skull and jaws; Crocodilus, one large skull; Tillotherium, incomplete skull; unidentified creodont, one lower jaw; unidentified artiodactyls, two incomplete skulls: testudo. three carapaces and plastrons.

As a rest of the half hitherto been represented in the Musum to see All left open white specimens of modern reptiles were a second is " or I as I can retreentative specimens of the gillonite mined in (i) A. A. The A. I tant Curator of Invertebrate Paleontology spent Just the reselvin full in northeastern Iowa, collecting Ordovician at I Deseman to de. Near Clermont strata of Trenton and Lower, Mr. P. and Urger Maquoketa age afforded representative collections. the Trent on founds being principally gastropods and cephalopods, and the Magnelleta brachiopods, trilobites, sponges and worm tubes. Not selly was the quality of the fossils obtained from these localities particglarly soot for exhibition and study purpoles, but also leveral species Stamed will doubtless prove to be new. About 1,200 specimens rethe enting so species were in all obtained from these strata. The kind a distance of Dr. Frederick Becker and his son A. G. Becker, both in giving information and in taking part in the actual work of collecting in the locality, was of much value. In search for Devonian fossils Ionalities near Independence, Randalia, West Union, and Fayette were vi Fed and desirable material obtained from all of them. Near Indepen-Jense even quarmes were visited and about 500 specimens secured, representing 84 species of brachiopods, corals, etc., and seven specmuchs of a rare Devonian sponge. A number of specimens of agates, soneretions, rocks, and clays were also collected here. The locality near Randalia vielded about 500 specimens of brachiopods, representing 15 of an elected, and at West Union and Favette small, representative sollestions were obtained. All the material collected was practically nex to the Mu eum collections and some, as has been stated, will raphably prove to be new to science.

No important field expeditions were conducted in 1010 by the regist remisers of the Zoological staff. Assistant Curator W. H. Condition of the important in January for London. England, taking with him to the large collection of Attract manimal returned by the Mureum African expedition of 1005-6. He returned in March having been most courteously received by the first of the British Museum of Natural History and having satisfic the thin-dishe material by comparison with the many types and the track of the material by comparison with the many types and the manual means in the London institution. Owing to the confused the male medium size, and to the almost total lack of specially the of the Atlantic, this was the only way in which the mild be therefore, the tudied and authoritatively named.

this country is thus very greatly increased. The complete report on the collection has not yet been published, but two preliminary papers have appeared describing one genus and twenty-eight species and subspecies of mammals new to science which are contained in the collection. Several short expeditions for local field work were undertaken with successful results. Mr. Osgood spent two weeks in August in northern Wisconsin and a few days in northwestern Illinois collecting small mammals. 111 specimens were secured. Later, in November, through the kindness of Mr. Cyrus H. McCormick, Mr. Osgood spent two days at White Deer Lake, near Champion, Michigan, making photographs and preliminary arrangements for securing material for a group of beavers. Mr. C. A. Corwin, artist, and Mr. Julius Friesser, taxidermist, spent ten days in July at East Tawas, Michigan, securing material for preparing bird groups. Mr. Corwin later spent several days at Dowagiac, Michigan, and a week in the vicinity of Yule, North Dakota, making sketches and color notes for use in background work. In October, L. L. Pray, taxidermist, spent two weeks at Dowagiac, Michigan, securing material for the preparation of groups of small mammals. The services of Mr. Henry F. Raven, of Venezuela, were secured for six months' work in Costa Rica and Venezuela as collector of mammals and birds.

Following is a list of the expeditions since the date of the last report:

Locality.	Collector.	Material.
Northern Georgia	.H. H. Smith,	Timbers.
Utah ;		Vertebrate fossils.
German New Guinea .		Ethnological.
Costa Rica and Venezuela	.H. F. Raven,	Birds and mammals.
Iowa	.A. W. Slocom,	Invertebrate fossils.
Maine	.O. C. Farrington,	Minerals.
Illinois, Wisconsin and Mic	h	
igan	.W. H. Osgood,	Mammals, birds, and group material.
Philippine Islands	.F. C. Cole,	Ethnological.
Ohio	.C. L. Owen,	Preliminary investigation.
Northwestern University,		
Milwaukee, Racine, Be	ea-	
ver Dam	.C. B. Cory or assistant,	Examining and comparing specimens in local museums.
China and Tibet	.B. Laufer,	Ethnological.
Texas		Herbarium specimens.
		LENT IMPROVEMENT TWO cases of

INSTALLATION, REARRANGEMENT, AND PERMANENT IMPROVEMENT.—Two cases of Batak and three of Apayao material, secured by F. C. Cole in Northern Luzon, have been installed in Hall 57, now temporarily filled with

Che s and Tibetan ethnology collected by Dr. Laufer. Hall 50 has fire one time past been used for the storage of Asiatic ethnology. The material has been installed in 27 standard cases, comprising five and to ha, two of Ceylon, two of Siam, two of Burma, seven cases at the H. N. Herinbotham Korean Collection, three of Ainu and three or Sagladan and Siberian tribes, including the Gilyak, Orochon, Tungue, G. H. and other tribes. A number of boats, for a long time in stomes in the East Annex, coming from the former Department of Transportathen and various collections, have been placed in their proper places in Halls 12, 11, 45, 52, 56, 57 and Alcoves 83 and 84 of the East Court, Hall 40, formerly devoted in part to Bontoc Igorot ethnology, is now being reinstalled in standard cases, to contain all Igorot collections, most of winch material was coured by Assistant Curator Simms on the first and fourth Cummings Philippine Expeditions. This necessitates the removal from this Hall of two cases of Moro ethnology, which will be remotalled with Moro material now being collected by Mr. Cole. Two Errusian bars, gifts of Mr. E. E. Aver and Mr. C. L. Hutchinson, have ison placed in Alcove 120, North Court. In Hall 41 the life-size Forge Group of five figures, illustrating the manufacture of iron weapons by the Tinguian tribe of Philippines, has been completed, also the minature Tinguian Village, consisting of houses with many and varied accessories. A facsimile of the Papyrus of Ani, the gift of Mr. E. E. Aver, has been in talled upon the North Wall of the Egyptian Hall, necessitating the the ingof the mortuary textiles in frames, still higher. This reproduction, nearly so feet in length, was carefully mounted upon a backing, in long tions, of three-ply veneer, covered with wire netting and papier-maché. The frame surrounding the whole was also put up in sections, so that, if leared the whole could be removed without damage. In Hall 1, an acorn granary from the Coahuilla Reservation in southern California, has been installed, upon a platform of poles. The Algerian gold and silver revelry mentioned in the list of gift accessions was temporarily installed in two cases on the South Wall of the H. N. Higinbotham Hall. life- i.e Kwakiutl figure has been modeled and cast, upon which is to be shown the large Hamatsa rayen mask of a Cannibal Dancer. A life- me figure has been modeled and cast for the Samoki pottery maker, ore of the four groups to be shown in a new case illustrating Philippine in his tree. About 40 small Igorot figures, modeled by J. A. Burt, have Lean east for better pre-ervation. Mr. Stanley McCormick has made areas on for the completion of the set of 13 Oraibi altars, the reprothe to a cd which was undertaken several years ago. In addition, two or the ef the most famous Hopi shrines will be reproduced, as well



Enlarged Flower Cluster of the Grape-Fruit. Illustrating the floral characters of the family Aurantiaceae.

UNIVERSITY F HETWINS
URBANA

as one of their typical springs at which offerings are deposited. In addition, manuscript will be prepared for publication, labels, etc. For this purpose, the services of H. R. Voth has already been secured, and he is now at work upon his notes, drawings, photographs, etc., as well as engaged in shaping the various figures needed for the altar work.

In the Department of Botany material for general economic collections having been exhausted by the large installations accomplished last year, there remained no complete case display to accomplish this year. The work upon the installation has, therefore, been that of finish rather than that of enlargement. Specimens in 84 cases, installed previous to 1909, have been readjusted to render their appearance uniform with the newer and more satisfactory installations. This required the introduction of some modern mounts and labels and repainting with the later and "flatter" background and mount color. Further material has been added to 7 cases; 3 cases have been completely reinstalled; and 2 cases installed with new material. Despite many setbacks, caused by delay of the owner of the modeling shop in putting the same in proper condition for occupancy, satisfactory results have been obtained. glass blower and a helper were regularly added to the staff. following reproductions and models have been executed and placed on exhibition: A life size reproduction of a complete Sweet Potato plant showing the tubers; enlarged sectional flowers of the Akee, the Mangrove, the Pomegranate, the Sea Grape, the Sour Sop, the Grape Fruit; the male and female flowers of the Papaw (Carica) and the male flower of the White Birch; a full flowering rachis of the Papaw (Carica) and enlarged portions of the male and female catkins of the White Birch; a branch with leaves and fruits of the Pawpaw (Asimina), ripe and sectional fruits of the same; a large sectioned fruit of the Papaw (Carica) and a series of five reproductions illustrating the development of the fruits of the Mangrove. In addition to these, complete reproductions of large branches of Akee, Sea Grape, Pomegranate, Sour Sop, Grape Fruit, and Mangrove; a complete summit of a Pawpaw tree and complete plants of Aloe and Anthurium are ready for assemblage and finishing and the elements of all the various studies made by Dr. Dahlgren last year in Jamaica are ready for reproduction. The glass blower has reproduced a large number of complete pieces, such as several natural sized spikes of the minute flowers of the Sea Grape and the Akee. complete clusters of Grape Fruit; Papaw flowers, flowers of the Mangrove, Aloe, and Pomegranate; and many hundreds of piece parts of plants (for instance, to show the necessities of this work, 1,200 fruits

Authorities the flowers and bods of Aloe in all stages of devoents and minute stamen of the Pomegranate; 125 enlarged stamens the large, 15 minute ovules of Carica, etc.).

In Higher chain Hall come specimens of germs and gold have I -es tilled and a spring button operating out ide the case has been prevised for one of the specimens of chalcedony containing liquid. I Hall 13 a retre entative eries of the sponges of the Head Collectical has been installed. The specimens exhibited occupy one wall co-For the most part the specimens are mounted on standard black bound this that pecies poor ed in an especially large number are shown m. . I. Species especially well represented are leveral of Astylos ...... Hindia theoreidalis and Palacomanon cratera. Among Trente o constant the genus Zittelella is well represented. Polished sections of number of scones with lenes mounted before them in order that the Larriful interior structure may be better seen also form a part of tiexhibit. In Hall 30 ome of the most striking specimens of the Bulargeon crinoids obtained in the Fultz collection have been installed in a first cale. The specimens have been, for the most part, mounted on tablets, about eighty of which are in use, and a typical exhibit of the elementiful forms has thus been obtained. Another change in this Hall has been to move the miscellaneous Triceratops bones to a case adjacent to the skull. In order to obtain room for the exhibition of the increasing number of Tertiary fossil mammals obtained in successive Museum enceditions, a complete readjustment of the wall cases in Halls 30 and to har been made and the specimens in them rearranged. As rune arranged an entire case is devoted to the White River vertebrate fossib, and two cares to Loup Fork vertebrate fossils. Among the import in positions of Loup Fork age placed on exhibition here for the fire time are a complete skeleton of Promerycochaerus obtained by the expedition of 1956 in Nebraska, and a skeleton of the Miocene camegiralte Oxydactylus longipes obtained at the same time in Wye ning The Promery ochaerus skeleton is fully articulated and mounted stancing, that of Oxydactylas has not been articulated and is exhabited in a grone profition. The Promerycochacrus skeleton is one of for membed ones in existence. The animal was a member of the Ore short group, of which it was one of the last and largest representatimes. The whole group became extinct before Pliocene time. In Hall to a number of specimens representing extinct whales and dugong of Florida have been placed on exhibition. In Hall or the position of the Glyptodon mount has been changed so that a broader passageway is - up 1. In Hall 62 the Ahumada meteorite and some smaller specimens have been placed on exhibition. The large map in this Hall, showing places of meteorite falls in the United States, has also been brought up to date by the addition of all recent falls. New specimens have here and there been added, with some rearrangement, in Halls 63 and 64. In Hall 65 the collection of sand-barite concretions received from Prof. Gould has been added to the concretional series and the series is now as a whole perhaps the largest and most complete to be seen in any museum. Some small fulgurites have also been mounted and added to the collection of fulgurites in this Hall and some large cave specimens not previously exhibited have been placed on exhibition. In Hall 66 a considerable rearrangement of the specimens in the wall cases has been made in order to permit the introduction of new material, the most important of which is the series of trap dikes in granite obtained by the Curator in Maine. Additional marble slabs received during the year have been installed in Hall 67, and a number of new labels, some of them descriptive, placed with the corresponding specimens. Each important series of marble in this Hall is now provided with a fully descriptive group label. From Hall 69 the entire series of specimens was removed, the cases and specimens cleaned, and the specimens reinstalled. This work will continue to be necessary at intervals in this Hall until dust-proof cases are provided. In Hall 70 the metal trays containing specimens in the form of powders or lumps have been removed, painted to a color uniform with the interior of the cases, and reinstalled. The appearance of the collection as a whole has thus been improved. Labels have also been installed with the collection throughout, the standard label holder being used. Hall 71, devoted to petroleum and its products, has been entirely dismantled preparatory to a complete recasing of the collection. Funds for this purpose have been generously provided by the Standard Oil Company and the construction of the cases is under way. Before reinstallation a complete renovation of the Hall will be made. The principal addition to the installation in Hal 72 has been that of a working model of a twenty-stamp gold mill, which was constructed in the Department after designs made by the Assistant Curator. The model is four feet six inches long, three feet six inches high, and eight inches deep. It is placed in a wall case on the west wall of the Hall. It represents a section of a gold mill with the house in skeleton. Running from a mine not represented is an elevated tramway upon which an ore car is shown. At the end of the tramway is a grizzly or screen with its pile of ore, followed by a crusher of the Blake type modeled in wood, and an ore bin of standard type. This bin is provided with a glass front which permits a view of the crushed ore

From the bin two chutes lead to the two ten-stamp mills which are the prominent features of the model. Each mill, exclusive of its concrete foundation, is one foot high and ten inches long. Each on its of a heavy oak framework which supports ten steel stappe a orking upon steel anvils in a wooden mortar equipped with copper greens. The shaft, cams, and tappets are all of steel while the boxem which the journals run are, like those of the full-sized mills, of can from. The flywheel, which is of wood, is driven from a main driving shaft by a leather belt. In one mill the screens in front of the mortar are shown removed to permit a view of the interior. In front of the mill are shown amalgamated copper plates and a launder. The entire model has been built according to the plans and specifications of a standard mill and has been modified only in such ways as the small size has made necessary, or as changes were required in the relative positions of the parts in order to place the model within the space available The mill has been so constructed that if power were available, it could be run daily without injury, and with a few inexpensive alterations it could be rendered capable of actually treating ore. Another model constructed in the Department and installed in a floor case in this Hall represents a Hartz jig of standard type. Owing to the scarcity of space the model was made upon a small scale, although the details of its structure are complete. The height of the model is six inches. length eight inches, and width four and one-half inches. It is built of wood except the shafting, wheels and eccentries, which are of shall The jig is represented as treating a low-grade silver ore, taking the ground ore and vielding three products, gold ore, silver ore, and was a Like the ten-stamp model this jig is a working model which upon the application of power could be run continuously. In fact the ore bed shown with the model were made by the operation of the model itself Maps of Colorado and Nevada showing the localities and names of the gold and silver mining districts of those states were prepared by the A listant Curator and placed upon the walls of the Hall adjacent to the corresponding collections. The work is intended to be continued until all the important mining localities shall be represented. In Halls 70 and 77 the large maps of the Grand Canvon, Eureka Basin, and Auvergme have been framed, and the large photograph of Miles Glacier presented by L. V. Kenkel has been framed and placed on exhibition. There have also been framed and installed in Hall 77 the recently purchase! maps of Illinois and the Malaspina Glacier. It was found that the scre :: and to hold the case sashes in place in Skiff Hall were working loose owing to the wear of the wood. Accordingly metal sockets were provided for

all the sash screws and in place of screws of ordinary type the sash were all fitted with bronzed screws with an interrupted slot of the standard Museum pattern. Both the appearance and safety of the cases have been much improved by this change. In the same Hall considerable rearrangement of the collections has also been made in order to permit the introduction of new material. This material consisted chiefly of series of the rare earths which are coming into increased notice and for which inquiries are often made by visitors. In order to secure the space needed, considerable selection was made among the iron ores, especially those of Lake Superior, so that those of essentially similar appearance might be represented by the smallest possible number of specimens. It was thus found possible to reduce the space which this collection occupied without lessening the educational value of the series. In the readjustment selection was also made so that the series illustrating the lesser metals, such as mercury, tin, aluminum, nickel, cobalt, etc., should indicate as nearly as possible by their extent the relative importance of these metals. Thus the symmetry of the collections has been much improved and space gained for addition of new material. These changes have, however, been restricted to specimens in the wall cases along the south and southeast walls. In one of the floor cases the group of specimens presented by the Utah Copper Company has been installed, space having been secured by the withdrawal of some of the specimens of Lake Superior copper. The new material consists of two large specimens illustrating oxidized and sulphide ore and a series of crushed specimens representing the several stages by which a rich concentrate is obtained from the original low-grade material A large specimen of martite from Utah has been installed in a floor case, supplementing other large specimens of iron ores. Supplementing this exhibit a series of models illustrating the modern blast furnace and its evolution is in preparation for exhibition in this Hall. The discontinuance of chemical work in the Museum building having been deemed advisable, the portion of Hall 75 previously used as a chemical laboratory has been dismantled and the hood, desks, and apparatus previously in use there have been removed to a building on Jefferson Avenue where partial accommodations have been secured. In the absence of sufficient accommodations the Executive Council of Armour Institute very generously placed the facilities of the chemical laboratories of that institution at the disposal of the Department and an appreciated use has from time to time been made of these facilities. In the paleontological laboratory the following vertebrate material has been prepared during the year: One skull of Brontotherium ramosum

ere is I and mounted, one keleton of Promerycochucrus mounted as I see "." It one Acteton of Oligobunis, one skull and lower jaw of Horen I is horifus, one skull and lower law of Merycoidodon gracilis, to a 'call and lower laws of Leptauchenia, and one skull and lower jaw of Telm therium prepared for exhibition and numerous specimens prepared tor elementation. The fossil vertebrate material in storage has been thereighly overhauled and the wrappings of many of the specim of polessed to refuse their preservation. About one transard feel of new torage shelving have been erected and the specimens placed upon r in order of their field numbers. Thus the frequent moving of the grainens which has been necessary hitherto when any particular steeinien was desired, and which was more or less destructive to the reciment, will be largely avoided. Of invertebrate fossils about our thou and specim as collected in Wilmington, Illinois, have been cleaned and identified in the laboratory during the year, and some other preparatory work of the same nature has been done.

The storage collections of both birds and mammals have not tred through themselvens and the exhibits of manufals, repenally the large groups, have also been treated with insecticide. Considerable watered material consisting of anthresed hides of large mammals and rough skins of smaller mammals remain to be cared for, but the great mass of it has been cleared away and it seems probable that the one man are let too this work will be able to keep absence of it. During the year, the entire serial collection of birds on exhibition have been overhauled The especimens were in temporary cases, not dustproof, and in the cour e of time had become soiled and dusty. All of them have been thoroughly cleaned and such as needed it have been remounted and in talled in new cases. Early in the year the first results of the Stanley Field Ornithology Fund were installed and placed on exhibition in the West Court of the Museum. They consist of four large groups of North American birds in one large case divided into four sections, each with a large; disted background and reproduction of foliage, soil, rocks, and natural conditions in which birds live. The groups are as follows: the California Condor, showing two adult birds, one standing near r's not in a recess of a cliff and the other with wings at full spread i er to alight. Scene in the mountains of southern California. (2) The American White Pelican, showing several adult birds with their us to and eggs, together with other species, such as Cormorants, which Ir all with them, and characteristic surroundings on a sandy islet in A Sukatchewan lake. (3) The Wild Turkey, four adult birds in the the season represented is autumn

and the richly tinted foliage combines well with the black and bronze of the birds. (4) The Water Birds of Quill Lake, Saskatchewan, including 37 birds of various species, as the Canada Goose, Pintail Duck, Blue-winged Teal, Scaup Duck, Widgeon, Gulls, Terns, and Shore birds. About 100 birds for the serial North American and Illinois collections have been mounted and placed on exhibition. Room 22, which contains the exhibition collection of fishes has been improved by several changes and additions of new groups. Four cases not well suited for the exhibition of fishes have been transferred to the Hall devoted to Osteology. Two new cases have been added, containing 15 groups of mounted fishes. Screens have been made for two other cases and these are ready to be put in place and installed as soon as the material now in course of preparation is finished. During the first half of the year attention was devoted to experimenting to devise the best method for preparing groups of fishes for exhibition, with most satisfactory results. Unfortunately work on several groups of fishes was temporarily discontinued last July, due to the illness of the fish taxidermist, Mr. Heim, who was obliged to seek a different climate, but who is now doing work for the Museum in Arizona and it is hoped he will be able to return to Chicago in the near future. Of the several groups placed on exhibition the largest and in many ways the most exceptional is that of the Tiger Shark with her brood of 44 young. This animal is viviparous and the adult was captured at a time when the young were about to be born. The group is probably unique. During the past year the inventory of the great Strecker collection was completed and considerable time was devoted to work on local insects, such as pinning, labeling, and distributing specimens already in the collection and others secured from time to time by the Assistant Curator and his assistant. 2,800 insects have been pinned and labeled. A large number have been determined and placed in the study collection. During the year the work in the Division of Osteology was continued as usual with satisfactory results. Through the courtesy of Mr. William Warwick, Superintendent of the Standard Oil Company plant at Whiting, Indiana, the facilities for work there were continued, and 38 skeletons and skulls were degreased during the summer. The Assistant Curator made some experiments in working out a satisfactory method of exhibiting specimens without shelves, and a paper was written and read before the meeting of the American Association of Museums at Buffalo, New York, May 31, 1910, on this subject. Mr. Gueret also completed the labeling of specimens and card index of Osteological material to date.

## 15 FIELD MUSICAL OF NATURAL HISTORY REPORTS, VOL. IV.

Page 50. The number of labels, forms, and other impressions turned out by the Section of Printing is shown in the following table:

	Latela	Other I in
Department of Anthropology.	3.744	1,900
Diporting to the day	4.517	15.950
Digitalment of Goldegy	3.012	838
Deposition of Zoology	72	30,056
Der ter's Omen	()	45,653
Lister very		12,000

Protestable and Illustration — The following table indicates the work performed in this important Section:

	Negatives.	Prints.	L	ments.	Skulls,
Dire tor's Office .	22	127	10	6	
Diportment of Anthropology	569	2,813			
Dipartment of Botany	38	251	55		15
Department of Goodegy	0.1	206	113		
Department of Zoology.	198	404	166	1	6
î hatri esta en		121			
Chit		252	I	8	
\$ 25		561	50		
Totals	921	4.735	305	15	2(

Negatives made in the field by members of the staff and developed by the Section of Photography:

Department of Anthropology	10
Department of Botany	96
Department of Geology.	105
Department of Zeology	7.3
Total	285

ATTENDANCE. The attendance for the year shows an increase of nearly 10,000 over the previous year. The following is the list of school class attwenty pupils or more) that visited the Museum during the year.

Schools and Location.	Teachers.	I
Wen Fill Phillips High - Thirty-ninth Street and Prairie Avenue	1	11.2
Wind C Phillips High - Thirty-ninth Street and Prairie Avenue .	1	4.2
Blue I lim! Blue I dan! Himols	3	100
Kenward - Lake Avel, corner Fiftieth Street	1	489
M - ly Bible Institute — so Institute Place		9.5
Change Common. Fifty, eventh Street and Lexington Avenue.		15
stagists - Blue I fan I, Illinois	2	27/8
No all rry - Willow and Orchard Streets	2	0.1
me Herrico I and Nurth Street — Blue Island, Illinois	2	38
Orr Laired Viles 2347 South Leavitt Street	2	(%)

Schools and Location.	Teachers.	Pupils.
Wendell Phillips High — Thirty-ninth Street and Prairie Avenue .	2	55
Bismarck — Armitage and North Central Park Avenues	2	72
Saunders — Blue Island, Illinois	6	60
Seymour — Blue Island, Illinois	4	115
Harvey — Harvey, Illinois	I	40
Frances E. Willard — Forty-ninth Street and St. Lawrence Avenue	I	40
Wentworth — Seventieth and Sangamon Streets	I	38
Prescott — Wrightwood Avenue, corner North Ashland Avenue .	2	60
Vaclava St. Wenceslaus — DeKoven Street, near Jefferson Street .	2	30
Seward — Forty-sixth Street and Hermitage Avenue	1	24
Gallistel — Ewing Avenue, near One Hundred and Fourth Street .	1	25
Madison Avenue — Seventy-fifth Street and Madison Avenue	2	74
Scanlon — One Hundred and Seventeenth Street and Perry Avenue	5	74
Motley — North Ada Street, near West Chicago Avenue	I	35
Sherman — Fifty-first Place and Morgan Street	I	42
Pullman - Pullman Avenue and One Hundred and Thirteenth		
Street	2	94
Burke — Fifty-second Street and Prairie Avenue	2	65
University of Chicago — Chicago, Illinois		40
Agassiz — Diversey Boulevard and Seminary Avenue	I	28
Bryant — Riverside, Illinois	3	55
University of Chicago — Chicago, Illinois		45
Garfield — Fourteenth Place and Johnson Street	I	25
St. Benedict — Irving Park Boulevard and Leavitt Street	4	59
University of Chicago — Chicago, Illinois		24
Immaculate Conception — Thirty-first Street and Bonfield Avenue	2	32
Bryant — Riverside, Illinois		20
University of Chicago — Chicago, Illinois .		21
University of Chicago — Chicago, Illinois		22
University of Chicago — Chicago, Illinois		26
University of Chicago — Chicago, Illinois		31
Visitation — Garfield Boulevard and Peoria Street	2	33
Thorp Vacation — Eighty-ninth Street and Superior Avenue	I	25
Graham Vacation — Forty-fifth Street and Union Avenue	10	312
University of Chicago — Chicago, Illinois .		29
University of Chicago — Chicago, Illinois		24
Nativity — Thirty-seventh Street and Union Avenue	4	25
Jenner Vacation — Oak Street and Milton Avenue	11	97
University Elementary — Fifty-ninth Street and Monroe Avenue.	2	32
University Elementary — Fifty-ninth Street and Monroe Avenue.	2	36
University Elementary — Fifty-ninth Street and Monroe Avenue.	I	33
University of Chicago — Chicago, Illinois		24
Normal Practice — Stewart Avenue and Sixty-eighth Street	2	37
Francis W. Parker — 330 Webster Avenue	4	22
University Elementary — Fifty-ninth Street and Monroe Avenue		22
Normal Practice — Stewart Avenue and Sixty-eighth Street .	3	38
Thornton Township High — Harvey, Illinois		69
Hyde Park High — Fifty-seventh Street and Kimbark Avenue	I	49
Tive Tark High — Tity-seventh before and Timbark Tivende	-	42

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of a and More at the	Tealen	Prode.
H. C. P. & High - Pitty e wenth Street and Kunbark Avenue	1	All
former of Electrical Fifty-funth Street and Monroe Avenue .	1	P. All
He L. Park, High - Fifty-eventh Street and Kimbark Avenue	1	51
Holl Park High - Pifty - worth Street and Kimbark Avenue	1	16
Leven W. La rely Lexington Avenue, near Sixty-fourth Street .	20	40.
University of Changes — Change, Illinois		3.6
Ferns + 1 One Hundred and First Street and Union Avenue	1	3.5
Leans In trute - West Made on and South Robey Streets	1	38
H 'v Trun'v — Noble Avenue and Crittenden Street	2	30
Lewis Chaplin Sixty cound Street and Princeton Avenue	2	25
Walter High — Orehard and Center Streets	2	33
Irving Park — Rossie and Belmont Avenue	2	2.0
Chi at A allemy of Fine Arts - Madison Street, near Michigan		
Avenue Wendell Philips High - Thirty-ninth Street and Prairie Avenue	1	47
ART		4.9
	2	10
Change Kindergarten Association Chicago, Illinois	5	36
Wen Iell Philips High - Thirty-ninth Street and Prairie Avenue	1	11
Wen lell Philips High - Thirty-ninth Street and Prairie Avenue .	1	300
Park : le - Seventi th Street and Scipp Avenue	1	:34
Henry Clay - One Hundred and Thirty-third Street and Superior		
Asenue	1	-31
Valparar o University Valparai o, Indiana	1	Tail
Irving Park - Rocce and Belmont Avenue	1	83
University Elementary Fifty-ninth Street and Monroe Avenue .	1	41
Wendell Phillips High - Thirty-ninth Street and Prairie Avenue .		.81
Englow - I High - Stewart Avenue and Sixty- econd Street	.3	300
As rmal Practice - Stewart Avenue and Sixty-eighth Street	2	-33
Wen bill Piallips High Thirty-ninth Street and Prairie Avenue .	1	.20
Umversity of Nebraska - Limodn, Nebraska	2	-30
From: W. Parker - 350 Webster Avenue	1	24
Hy is Park High - Prity-eventh Street and Kumbark Avenue	1	30
Blue I and High - Blue I land, Illinois	1	20
Wendell Phillips High - Thirty-ninth Street and Prairie Avenue .	I	.900
Chronic Latin - 1200 Michigan Avenue	2	-40
Purker is — Seventieth Street and Scipp Avenue	1	-30
Wen I II Philip High — Thirty-minth Street and Prairie Avenue . Park : Seventieth Street and Supp Avenue	I	35
Farset sty of Chringe - Chringe, Elimes	1	31
I is early Valution - Marshall Boulevard and West Twenty-		
for Stell	11	257
The retrief Chrisge - Chicago, Himeis		2.6
In a rate of Change Change, Blancis .		10
University of Change - Chingo, Elimeis .		75
The rate of Change - Change, Elimone .		25
True total Charge — Charge, Limis .		20
the form of Change - Change, Elimens .		35



MINIATURE TINGUIAN VILLAGE. Luzon Island, P. I.

SPACESAGE OF STOROGY

Schools and Location.	Teachers.	Pupils.
Marks Nathan Jewish Orphan — 1243 North Wood Street	I	51
Parkside — Seventieth Street and Seipp Avenue	2	26
Moody Bible Institute — 80 Institute Place		20
Lake High — Union Avenue and West Forty-seventh Street	I	42
May — South Fiftieth Avenue, corner West Harrison Street	I	20
Jewish Training — 554 West Twelfth Place	5	60
Gresham — Eighty-fifth and Green Streets	2	35
Washington — Morgan and Erie Streets	4	44
Bryant — Forty-first Court near Fourteenth Street	I	20
Joseph Medill — Fourteenth Place near Throop Street	I	39
Marquette — Harrison and Wood Streets	2	21
Normal Practice — Stewart Avenue and Sixty-eighth Street	3	49
University Elementary — Fifty-ninth Street and Monroe Avenue .	2	32
Baptist Mission Training — 2969 Vernon Avenue		20
Hyde Park High — Fifty-seventh Street and Kimbark Avenue	I	46
Kenwood — Lake Avenue and Fiftieth Street	2	46
Northern Illinois Teachers Association	379	
Wendell Phillips High — Thirty-ninth Street and Prairie Avenue	I	24
Forest Park — Forest Park, Illinois	I	55
St. James — Twenty-ninth Street and Wabash Avenue	2	27
University of Chicago — Chicago, Illinois		25
Kosminsky — Fifty-fourth Street and Ingleside Avenue	I	39
James Wadsworth - Sixty-fourth Street and Lexington Avenue	2.	127
Farragut — Spaulding Avenue and Twenty-third Street	Ï	35
Anderson — Lincoln and Division Street	I	53
University of Chicago — Chicago, Illinois	1	27
School of Education — Fifty-ninth Street and Monroe Avenue	I	29

Herewith are also submitted financial statements, list of accessions, names of members, etc. Frederick J. V. Skiff,

Director.

# FINANCIAL STATEMENT.

## GENERAL ACCOUNT.

## RECEIPTS AND DISBURSEMENTS.

January 1, 1910, to December 31, 1910

## RECEIPTS

Cach in Treasurer chands, December 31, 1909.		\$1014.4f
Petty Cash on hand, December 31, 1909.		7.10.03
Dues of Annual Members,		1.51h.m
Admissions and Clock Rooms.		F.171.00
South Park Commissioners :		This or lot
Interest on Investments		35.710.08
Field Endowment Income		137,110.00
Interest on Daily Balances .		1,044.74
Sun Iry Receipts and Refunds		2,702.47
Sale of Guides		100 28
Stanley Field Ornithology Fund		1,000,00
Field-Sprague Ornithology Fund		1.131.25
R. F. Cumming, Philippine Fund		3,000,00
Joseph N. Field South Pacific Islands Fund		10,000.05
Huntington W. Jackson Library Fund		.20.00
Standard Oil Fund		0.388.73
Stanley McCormick Hopi Fund		T,000.00
Mrs. Timothy B. Blackstone Fund.		10,000.00
Special Donations -		
Bryon L. Smith	\$500,00	
William J. Chalmers	500,00	
Stanley Field .	199.61	
George Manierre	199.61	
W. on F. Blur	100.61	
Elward E. Ayer	199.61	
George F. Porter	100.62	
Richard T. Crane, Jr.	199.62	41197.67
Hemer E. Sargent Fund .		30.00

-

S14 6 M

\$3000 A

Mar hall Field Endowment Sinking Fund

Mardiall Field Endowment Sinking Fund Income Account

New Bulling, Moving and Furnishing Fund Income

Disbursements	
Salaries	\$81,514.98
Guard Service	13,223.40
Janitor Service	7,612.15
Fire Protection	3,350.04
Heat and Light—	
Wages	
Fuel 6,452.35	
Supplies, Gas, etc	11,237.84
Repairs and Alterations—	
Wages of Carpenters, Painters, Roofers, etc 10,800.06	
Material used, paints, oils, glass, lumber, plaster, etc	
etc	18,287.88
	10,207.00
Furniture and Fixtures—	
Cases and Bases	
Building Fixtures	15,929.01
	15,929.01
The Library —	
Books and Periodicals	
Binding	2051 15
Sundries	2,954.15
Sections of Printing and Photography	955.46
Collections, etc., Purchased	15,193.87
Departmental Expenses .	5,950.40
Expeditions	5,107.92
Publications	2,237.05
General Expense Account —	
Freight, Expressage and Teaming	
Stationery, Postage, Telephone, etc	
Northern Trust Company, Custodian Fee 338.66	
Lecture Course Expenses 975-95	
Insurance	TO 900 00
Sundries	10,822.23
Stanley Field Ornithology Fund	853.65
Field-Sprague Ornithology Fund	1,279.34
R. F. Cummings' Philippine Fund	3,108.80
Joseph N. Field South Pacific Islands Fund	5,600.00
Mrs. Timothy B. Blackstone Fund	10,000.00
Homer E. Sargent Fund	25.15
Guide Account, Ninth Edition	766.52
	\$216,009.84
In Treasurer's hands December 31, 1910 30,724.58	
Byron L. Smith, Treasurer, Endowment Sinking Fund . 500.00	
Petty Cash on hand December 31,1910 739-95	
New Building, Moving and Furnishing Fund Investment 20,000.00	
General Fund Investment Account	87,964.53
	\$303,974.37

# AFTENDANCE AND RECEIPTS FROM JANUARY 1, 10) DECEMBER 31, 1910.

ATTENDANCE		
Parl Arren Lande		
Alaksia a sa	27,307	
Children	1.500	184,00
Free Admission on Pay Days		
= 1 fildo-	3,401	
Shallotel	(Later)	
Tracing	942	
Months Liephonia	:7%	
Annua	11	
1.16	0.1	
Profile	113	
twent.	1107	
	i A	(0.01
Admission on Free Days -		
Saturday	39,127	
Sundays		463.33
Total Attendance		175 04
Highest Attendance on any one day (August 28, 1910) .		6,77
Highest Paid Attendance on any one day (September 5, 1910)		11
Average Daily Admissions (365 days)		100
Average Paid Admissions (200 days) .		
the state of the s		
Receipts.		
Gurlos od I - 725 at 25 cents each		81/51.
Articles Checked 111,885 at 5 cents each		594
A Initiation .		8,076.5
		8 660

# ACCESSIONS.

## DEPARTMENT OF ANTHROPOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED )

AYER, E. E., Chicago.

Etruscan jar.

BLACKSTONE, MRS. T. B., Chicago.

Ethnological material — China, India and Tibet (collected by Berthold Laufer).

CHALMERS, WILLIAM J., SMITH, BYRON L., Chicago.

Archaeological material — Illinois.

CUMMINGS, R. F., Philippine Expedition

General ethnological collection — North Central Mindanao (Collected by F. C. Cole).

Ifugao bench — Luzon, Philippine Islands (Collected by Geo. A. Dorsey).

General ethnological collection — Luzon (Collected by William Jones). General ethnological collection — Luzon (Collected by S. C. Simms).

9 Ifugao skulls — Luzon (Collected by S. C. Simms). 1 Ilongot skull — Luzon (Collected by S. C. Simms).

EGYPTIAN EXPLORATION FUND.

Fragment of small lapis lazuli hawk — Abydos, Egypt.

FIELD, JOSEPH N., Manchester, England. South Pacific Islands' Fund.

General ethnological collection — German New Guinea (Collected by A. B. Lewis).

FIELD MUSEUM OF NATURAL HISTORY.

Collected by Alfred R. Brown:

General ethnological collection — Andaman and Nicobar Islands.

Purchases:

Collection of spears, arrows, knives from Congo and Soudan

Alabaster and pottery mortuary jars, etc.— Northern Africa.

Collection of Algerian jewelry.

Collection of Belgian archaeology.

20 masks of buckskin worn in "Ya vi chy" dance of the Navaho Indians.

Steatite jar - Little Warm Spring Creek, Wyoming.

HAGERTY, T. A., Chicago.

Ancient Egyptian bronze figurine of Goddess Isis.

LATHROP, BARBOUR, Chicago.

Royal sarong — Jokjokerta, Java.

NIGHSWONGER, JAS., Harrisburg, Banner County, Nebraska.

Pottery bowl — Banner County, Nebraska.

## 44 FIELD MUSEUM OF NATURAL HISTORY - REPORTS, VOL. IV.

MORREHEAD, WARREN K. Antwer, Maria husett

Cave in Acrost from La AV. Cavern, Missouri, and Bushey Cavern, Missouri, and low homes.

O NEHLL, Dr., JOHN W., Change.

Stone carring of rattle nake Mexico.

SARGENT, HOMER E., Charles

Cotto to not other despited material. Sub-h Indian - British Columbia.

## DEPARTMENT OF BOTANY.

ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

BARNES, CAPT. F. S., Hill Jose, Oregon.

Oregon You how.

BATCHELDER, C. F., Cambridge, Mas achirects.

Therbarron paimen - Ma achiretta.

BLUMER, J. C., Vac on, Amona.

33 herbert im posimen . - Arizona.

BUTLER, GEORGE D., Yreka, California.

11 herberium promens - California.

22 herberium specimen. - California

23 herbarum specimens - California.

CALKINS, W. W., Berwyn, Illinois.

23 herbarium pecimen - Illinois.

CHAMBERLAIN, DR. C. J., Chicago.

1 Macrosamia Frascri emicro- and macro- potophylle: — West CONZATTI, CASSIANO, Oaxaca de Juarez, Mexico.

41 herbereim pecimens - Mexico.

COULTER, J. M., Chicago

1 b. et emm mon - California

therismum pecimen. Texas.

t berbarum perimen - Ohio.

I herbarium poumen continute lope imen of Nephrolepus evaltata-

CROSBY, MISS GRACE, Chicago.

2 lest armin que imen -- Illinei

CUSICK, W. C., Union, Oregen.

to hely man be imened -- Or fell

DHAM, CHAS, C., Bluffton, Indiana.

rherturum poumen - - Inliana.

r la rharram (polimen). — Indiana.

DEANE, WALTER, Cambridge, Massa busette.

28 her strum posimens - United States and Germany.

A Section 1 Section 18 Section 18

or berinden grown - Many Magazinestic and New Hospitales.

EBERHART, MRS. C. H., Les Angeles, California.

a beet griven are imony - California.

EPPLESHEIMER, MRS. A. P., Cristolal, Canal Zone.

to ber' anom specimens - Canal Zone.

3 her gram speamens - Canal Zone.

## FIELD MUSEUM OF NATURAL HISTORY.

## Collated by J. M. Greenman:

- I photograph of Castilleja Covilleana Henderson.
- 2 illustrations of plants.
- 88 herbarium specimens Yucatan and Mexico.

## Collated by C. F. Millspaugh:

- I Polyporus lucidus (Fungus).
- 47 economic specimens.
- 2 herbarium specimens Bahamas.

### Collected by R. A. Dixon:

143 herbarium specimens — Texas.

### Collected by H. H. Smith:

43 herbarium specimens — Georgia.

10 dry fruits — Georgia.

I fruit in formalin — Georgia.

403 economic specimens — Georgia.

56 economic specimens — Oregon.

#### Purchases:

703 herbarium specimens — California, Idaho, Montana, Nevada, Oregon, Utah and Wyoming.

323 herbarium specimens — Arizona. 222 herbarium specimens — Tobago and Trinidad.

187 herbarium specimens — Oregon.

96 herbarium specimens — United States.

384 herbarium specimens — Philippine Islands. 501 herbarium specimens — United States and Canada.

526 herbarium specimens — Mexico.

1500 herbarium specimens — Bahamas and Cuba.

#### Modeled by B. E. Dahlgren:

I sweet potato vine and flowers.

13 models of plants — Jamaica and Indiana.

5 models of plants — Jamaica and Indiana. 4 models of plants — Jamaica and Illinois. 3 models of flowers — Jamaica.

#### Modeled by H. O. Mueller:

2 models Carica Papaya and Theobroma Cacao.

### FULLER, GEORGE D., Chicago.

17 herbarium specimens — Alberta, Canada.

#### FURNESS, DWIGHT R.

13 herbarium specimens — Mexico.

## GEOLOGICAL SURVEY OF CANADA, Ottawa, Ontario, Canada.

24 herbarium specimens — Vancouver Island and Yukon.

#### GRAY HERBARIUM, Cambridge, Massachusetts.

1 herbarium specimen — Mexico.

## GREENMAN, J. M., Chicago.

4 herbarium specimens (Cultivated).

1 herbarium specimen — Mexico.

### GRUBB, MRS. R W., Darien, Georgia.

I Sesamum indicum "Benny candy" — Georgia.

I Sesamum indicum "Benny seed" — Georgia.

## 45 FIRED MUSICIA OF NATURAL HISTORY - REPORTS, VOL. IV

HAMILTON MANUFACTURING COMPANY, Two River, Wisconsin.

HARRISON, A. K., Win he fee, M.c. achir ett .

2) of aromy primers - Marachuetts

1.1MD, W. J. G., Change.

r Grant Salata - fruit - In lian a

LANSING, O. H. Jr., Change.

128 hert arum (poumens - Illinoi), Indiana and Michigan.

it in mic periment - Illinoi .

LUNELL, DR. J., Lost, North Dakota.

r berharium specimen -- North Dakota

MILLSPAUGH, C. F., Chicago.

46 plates from "American Medicinal Plant ."

6 plates of North American plants.

1 Sambucus racemosa L. - Ephraim, Wilcon in.

MISSOURI BOTANICAL GARDEN, St. Louis, Missouri.

2 original le criptions of plants (exchange).

MITCHELL, MISS CLARA J., Chicago.

I flet hat 'e.

MOSELEY, E. L., Sandusky, Ohio.

18 herbarium specimens — Ohio, Louisiana and Ontario (exchange).

\$5 herb rium specimens - Louisiana (ex hange).

NEVADA AGRICULTURAL EXPERIMENT STATION, Reno, Nevada.

NEWCOMBE, C. F., Victoria, British Columbia.

2 herbarium specimens — British Columbia.

NEW YORK BOTANICAL GARDEN, New York, N. Y.

r herbasium specimen — Great Bahama Island (exchange).

61 herbarium specimens - Jamaica (exchange).

4 herbarium specimens — Cuba (exchange).

2 herberium specimens - Jamaica (exchange).

5 herbarium specimens - - Bahamas (exchange).

202 herbarium specimens - Jamaica and Florida (exchange).

110 herbarium specimens - Cuba and Bahamas (exchange)

581 herbarium specimens — United States, Mexico and West Indies exchanges.

r herbarium specimen -- Crooked Island, Bahamas texchanges,

t herbarium specimen - Andreas, Bahamas eexchange

ORCUTT, C. R., San Diego, California.

212 herberium speciment - Mexico.

202 herbarium pecimens - Mexico.

388 herbarium polimens - Mexico.

202 herberium primm. - Morion

180 herbarium specimen. - Mexico.

PHAROLY MUSEUM, Salem, Massachusett 2502 her) arum spolimens.

PHPER, CHAS. V., Washington, D. C.

t is the strong pointener - Washington

ROSENDAHL, C. O., Minneapolis, Minnesota.

22 herbarium specimens — Alberta, British Columbia and Vancouver

SHULL, CHARLES A., Lexington, Kentucky.

I herbarium specimen — Kentucky.

SMITH, H. H., Chicago.

2 herbarium specimens — Illinois.

TOWER, W. L., Chicago, Illinois.

19 herbarium specimens — Mexico.
6 herbarium specimens — University of Chicago Greenhouse.
8 herbarium specimens — University of Chicago Greenhouse.

TOWNE, MRS. H. A., Harvard, Illinois.

107 herbarium specimens — Washington.

TRELEASE, WM., St. Louis, Missouri.

ı herbarium specimen — Texas.

2 herbarium specimens — Mexico.

UNITED STATES NATIONAL MUSEUM, Washington, D. C.

21 plates Algae (exchange).

12 plates phanerogams (exchange).

520 herbarium specimens — Idaho, Oregon and Washington (exchange). 364 herbarium specimens — United States, Canada, Europe and Aus-

tralia (exchange).

WOLCOTT, A. B., Chicago.

20 herbarium specimens — Illinois.

## DEPARTMENT OF GEOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

BECKER, G. A., Clermont, Iowa.

I slab of brachiopods and worm tubes — Patterson's Springs, Iowa.

15 specimens invertebrate fossils — Clermont, Iowa (exchange).

BEERS, CHARLES H., Eustis, Florida.

5 specimens gem smithsonite — San Pedro, Chihuahua, Mexico.

BLACK, H. M., Salt Lake City, Utah.

I specimen ozocerite in matrix — Kyune, Utah.

BÖHM, JULIUS, Vienna, Austria.

I specimen hambergite — Madagascar (exchange).

BRITISH MUSEUM, London, England.

2 specimens meteorites — Africa and Australia (exchange).

CHALMERS, WILLIAM J., AND SMITH, BYRON L., Chicago.

3,500 specimens fossil sponges — Tennessee.

1,500 specimens invertebrate fossils — Bridegport, Chicago area. 3,000 specimens invertebrate fossils — Mississippi Valley.

DEPARTMENT OF AGRICULTURE, SYDNEY, N. S. W.

5 pounds Bulli soil — Bulli, New South Wales.

DOHMEN, U. A., Chicago.

I map of Colorado.

DURANT, H. L., Prairie City, Oregon.

I specimen gold ore — Dixie Gulch, Prairie City, Oregon.

## 48 FILLD MUSICAL OF NATURAL HISTORY - REPORTS, VOL. IV.

## THE DOMESTIM OF NATURAL HISTORY.

chite reliation (\* Parmagten)

100 p recommendate to perimens allo training the feld par industry, 7 perimens also a migranite, 3 aprimens tell, 1 perimen rock,

4 ; imensit ils Central Maine.

#### C" willer E. S. Ruger

Vit a Ecome vertebrate for ils as follows: 12 specimens Te

11 q- imen. Dele horhime, 4 specimens Palaco yep. 3 specim. Umtatherium, 1 specimen Echarden , 1 specimen Tilletherium.

1 perimen Me enyx, 1 specimen Amyneden, 1 specimen creedent,

z -preimen, articelactvis,  $\bar{z}$  -pecimens to tudos,  $\bar{z}$  -pecimen croccellic

5 openimens invertebrate for its, 2 specimens gill enite, 1 openimens slite - Northeastern Utah.

#### Calle to I by A. W. Slocom:

3.631 pe imens invertebrate fo sils, 16 specimens ger les and concretion 3 per imens recks, 14 specimens agates, 1 specimen clay — Northcasterr Iowa.

150 specimens invertebrate fessils — Peteskey and Kegomic, Michigan. 200 specimens invertebrate fessils — Wilmington, Illinois.

#### Personal and

2 relief maps.

r calcite crystal - Joplin, Missouri.

1 kull of Hyaeno lom -- Bad Lands, South Dakota.

1 complete meteorite (weight 116 pounds) -- Ahumada, Mexico.

6 perimens famil figs -- Converse County, Wyoming.

2 penimens gold - Mariposa, California.

### GUULD, CHAS. N., Norman, Oklahoma.

15 specimens and barite concretions - Eastern Oklahoma.

#### GRAVES, F. P., D. Run, Missouri.

r perimen twin calcite crystal -- Joplin, Mr. ouri.

#### GRIMES, M. W., West Union, Iowa.

9 perimens and-marcasite concretions -- Miles City, Montana.

2 profinent invertebrate for all - Hackberry, Iowa.

I primen for different limestone - Vernon, Infanta

## GRUGAN, F. JUSTICE, Philadelphia, Pennsylvania.

if et the Lection and fragment of Shrew bury meter rite.

#### IOHNSTON, W. M., Chicago.

1 to timen geld one. Animas Forks, Celerado.

### Wildle, L. S., Vick burg, America.

1 to the necopport liver ore - Yuma County Arrena.

#### MHII's W. M. Panner, Oklahoma.

22 to ment retrival bowlders of gapoum, 4 the imens gapoum.

the immerials a coatefaith gypoim a Pawnie, Ollahoma.

### "MINGTO WORLD, Change, Illine"s.

received diverger - Portland Canal, British Columbia.

## Manther M. Carle

to a tomm of St Tomi Me mei

## " DOHOG S. H. W., Chooses

(i) promoned by tenes, represented the landwides — Percupine.
That is





NORDGREN, P. E., Kenosha, Wisconsin.

15 specimens invertebrate fossils — Pennsylvania (exchange).

REA, THOS. H., Chicago.

TAN., 1911.

10 specimens gold and silver ores — Cobalt and Porcupine, Ontario.

RHONE, HENRY R., Grand Junction, Colorado.

I specimen elaterite — Fort Duchesne, Utah County, Utah.

SHELBY, H. G., Burlington, Iowa.

12 specimens crinoids — Burlington, Iowa (exchange).

SLOCOM, MARTHA M., Chicago.

634 specimens invertebrate fossils - Bay View, Michigan.

THURSTON, DR. F. A., Chicago.

I specimen cyanite — Shawanaga, Ontario.

UNIVERSITY OF BRISTOL, Bristol, England.

63 specimens invertebrate fossils — England (exchange).

UTAH COPPER COMPANY, Salt Lake City, Utah.

2 large specimens copper ore, 20 specimens concentrates — Bingham Canyon, Utah.

WELLINGTON, J. L., Chicago.

I specimen diatomaceous earth — Boise, Idaho.

WESTFIELD MARBLE & SANDSTONE COMPANY, Westfield,

3 polished slabs of marble — Westfield, Massachusetts. S, E. D., Milwaukee. Wisconsin

WILLITS, E. D., Milwaukee, Wisconsin.

2 specimens crystallized calcite — Pewabic Mine, Iron Mountain, Michigan.

ZOELLNER, PAUL, Plainfield, Ohio.

I limonite concretion — Coshocton County, Ohio.

ZDENEK, PASMA, Farrar, Iowa.

1 specimen jasper — Farrar, Iowa.

#### DEPARTMENT OF ZOOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

ABBEY, E. S., Chicago.

I wasp — Chicago, Illinois.

ARMSTRONG, EDWARD E., Chicago, Illinois.

I American bittern — Lake County, Illinois.

BILLINGS, DR. FRANK, Chicago.

I large sawfish — Tampico, Mexico.I Tarpon skin — Tampico, Mexico.

CARNEGIE MUSEUM, Pittsburgh, Pennsylvania.

530 fishes — British Guiana (exchange).

CRANE, R. T., Chicago.

I mounted Whooping crane.

COALE, HENRY K., Highland Park, Illinois.

1 mink - Deerfield Lake Co., Illinois.

77 bird skins (exchange).

CORY, C. B., Chicago.

I hoary bat — Lake Geneva, Wisconsin.

## S. FILLD MUSICM OF NATURAL HISTORY - REPORTS, VOL. IV.

#### DUFFIFE, L. Chaga

a skin be. Chrago, Illinois.

place hit. He wille, Indiana.

#### EVAN. WALLACE Oak Park, Illinois.

r keleten of phe cant - Oak Park, Illinor

r fem de Elliot's phea ant.

### FIELD, MARSHALL & CO., Chicago,

t meantellingera gest.

#### FIELD MUSEUM OF NATURAL HISTORY.

#### Celle to I by Julius Frieser:

4 young hawks and nest - Long Lake, Tawas, Michigan.

ı black tern - Long Lake, Tawas, Michigan.

1 damander - East Tawas, Michigan.

anako. East Tawas, Michigan.

#### Collected by William J. Gerhard:

10 to spiders, centipedes, millipedes, dragontlies, crickets, grandroppers, bug., 1s tterflies, moths, beetles, flies, bees, wasps, etc.— Southern Illinois.

183 mosquitees -- Northern Illinois and Northern Indiana.

7 midges Northern Illinois and Northern Indiana.

553 dragon-flies, grasshoppers, bugs, butterflies, moths, flies, beetles, bees, wasps and parasites, etc. — Northern Illinois and Northern Indiana.

### Colle tell by E. L. Moseley;

r lizard - West Carrol Parish, Louisiana

3 makes - West Carrol Parish, Louisiana.

3 salamanders - West Carrol Parish, Louisiana.

11 toads -- West Carrol Parish, Louisiana.

1 frog -- West Carrol Parish, Louisiana.

#### Collegied by Wilfred H. Osgood:

t myrtle warbler - Lac Vieux Desert, Wisconsin.

t Lincoln's finch - Lac Vieux Desert, Wisconsin.

rehouse wren - - Galena, Illinois.

125 cad-licetlies, bugs, butterflies, moths, beetles, flies, bees, was ps. etc.
Northern Illinois and Northern Wisconsin.

108 small mammal: - Wisconsin and Illinois.

#### C. Complete L. L. Pray:

1 raccon skull - Madison Parish, Louisiana.

25 small mammal; - Dowagiac, Michigan.

#### C. " o to I by Honry F. Raven:

98 Lind skins -- Costa Rica.

168 bird kins - Limon, Costa Rica.

t in nkey -- Limon, Costa Rica.

7 apurrei. - Limon, Costa Rica.

t i st -- Limon, Costa Rica.

r alligator - Limon, Costa Rica.

a permary skull. - Limon, Conta Rica

t mantis - Limon, Costa Rica.

r Leetle -- Limen, Costa Rica,

2 beetles — Limon, Costa Rica.

1 caiman — Limon, Costa Rica.

Collected by E. S. Riggs:

I sand-cricket — Dragon, Utah.

2 beetles — Dragon, Utah.

Collected by E. S. Riggs and J. B. Abbott:

6 snakes - Dragon, Utah.

16 homer toads — Dragon, Utah.

50 lizards - Dragon, Utah.

I bat - Dragon, Utah.

Collected by A. W. Slocom.

I beetle - Clermont, Iowa.

I grasshopper — Clermont, Iowa.

2 bugs - Clermont, Iowa.

2 bees, wasps, etc. — Clermont, Iowa.

2 dragonflies - Brainard, Iowa.

I beetle - Brainard, Iowa.

3 beetles - West Union, Iowa.

Collected by H. H. Smith:

2 turtles - Darien, Georgia.

Collected by A. B. Wolcott:

1 Carolina rail — Jackson Park, Chicago.

461 nerve-wings, dragonflies, grasshoppers, bugs, beetles, flies, bees, wasps, etc.,— Illinois and Northern Indiana.

#### Purchases:

2 golden eagles — Bozeman, Montana.

I California condor.

1 wild turkey — Sussex County, Virginia.

I great horned owl — Bogota, Illinois.

30 bird skins.

710 bird skins.

231 bird skins — China.

r Pacific walrus.

11 small mammals - China.

4 opossums — Bogota, Illinois.

2 musk rats — Maine.

33 mammals - State of Washington.

72 South American mammals.

182 mammals — Beaver Dam, Wisconsin.

4 beetles — Darjeeling, India.

30 moths - Darjeeling, India.

210 butterflies — Darjeeling, India.

5 mounted reptiles — Europe.

I small rodent — Darjeeling, India.

5 gorilla skeletons — West Africa.

8 chimpanzee skeletons — West Africa.

6 mounted gorillas — West Africa.

II mounted chimpanzees — West Africa.

2 gorilla skulls — West Africa.

# 4: FILLD MUSICM OF NAMERAL HISTORY - REPORTS, VOL. IV.

tollong and a leather - West Africa.

on a Prate - Welf Like, Illinois.

t it is in a figurest and Funk I land.

at months i

2 february Line - Kenni, Alaska,

First kulls - Kena, Alaska.

17 for I Jan . Mexico.

i z ilm e gje termum.

Person of D., Christon

1 m is with at a hore - Calorado

PREEMAN, C., Paerto Vicio, Margarita I land, Venezuela.

1 Jour - Margarita I land, Venezuela.

FRIESSER, JULIUS, Chicago.

i led the Miller, Indiana

1 to the Mikado, Michigan.

23 stles - Liverped, Indiana.

I bette - Liverped, Indiana

r bi on kull - Fort Pierre, South Dakota.

r nowy owl skeleton - Woo fruff, Wiscon in.

r have let Liverp ad, Indiana.

1 lection Liverped, Indiana.

GILL, DR. G. M., Chicago.

II pata ite. Chicago.

GUERET, E. N., Chicago.

a large mouth black bars - Little Bars Lake, Wisson in.

theig - Savner, Wisconsin.

1 bornet - Savner, Wisconsin.

s beetles - Savner, Wisconsin.

pillr Sayner, Wisconsin.

2 palers - Savner, Wisconsin.

ISMOND, R. E., Chicago,

thouse each Bermuda I lands.

KWIAT, ALEX., Chicago.

t me quito - He wille, Indiana.

LARKIN, T. L. Chicago.

a long. Milway, W. Va.

statles - Midway, W. Va.

McCREA, W. S., Chicago.

1 - w of swhile - Gulf of Mexico.

MICHIGAN UNIVERSITY, Ann Arbor, Michigan.

1 tambow trent - Saginaw Bay, Michigan.

MOSELEY, E. L., San in &v. Ohio.

a white feete I mouse - West Carroll Parish, Louisiana (exchange).

MUNZNER, H., Chango.

37 begg, grank appers, crickets, beetles, flies, bees, wasps, etc. — Northern Ellings, Northern Indiana, California.

MUSEUM OF COMPARATIVE ZOOLOGY, Cambridge, Massachusetts.

57 small mammal dans with their skulls (exchange).

NORD TREN. REV. P. E., Konesha, Wisconsin.

9 w. ter diel's - Weckiva R., Lake County, Florida (exchange).

PLUM, MRS. D. C., Chicago.

I cockroach (this specimen no doubt was brought with fruit from some port in the West Indies or Tropical America).

PRAY, L. L., Chicago.

2 mice — Chicago.1 bat — Chicago.

REED, E. D., Chicago.

I walking-stick — Fort Thomas, Kentucky.

ROMANO, JOE, Chicago, Illinois.

1 moth — Chicago.

1 Tennessee Warbler — Jackson Park, Chicago.

ı olive-backed thrush — Jackson Park, Chicago.

RIGGS, E. S., Chicago.

I mountain sheep skull - Sheep Mountain, South Dakota.

SELONS, F. C., Worplesdon, Surrey, England.

2 European moles — Worplesdon, Surrey, England.

SLOCOM, A. W., Chicago.

1 pseudoscorpion — Chicago.

THOMAS, OLDFIELD, London, England.

3 pigmy squirrels — Boentoh, Borneo, and London, England.

I common European mole.

THOMPSON, S. L., Toronto, Canada:

i fly - Toronto.

I bumblebee — Toronto.

I beetle — Toronto.

3 dragonflies — Toronto.

I nervewing — Toronto.I dragonfly — Toronto.

I parasite — Toronto.

TOMS, MRS. D. B., Chicago.

I humming bird — Chicago.

WALLACE, W. L., Chicago.

I snake - Durango, Mexico.

WILLARD, O. T., Chicago.

1 evening grosbeck — Jackson Park, Chicago.

WILLARD, F. C., Tombstone, Arizona.

25 moths — Tombstone, Arizona.

#### SECTION OF PHOTOGRAPHY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

FIELD MUSEUM OF NATURAL HISTORY.

Made by C. H. Carpenter:

921 negatives Museum specimens, etc., 4,735 prints,

398 lantern slides, 15 enlargements, 287 negatives developed for field expeditions, 21 photomacrographs of skulls, seeds, etc.

Made by C. A. Corwin:

7 photographs of landscapes.

12 photographs of landscapes — Montana.

# G. Philo Miserm of Natural History - Riports, Vol. IV.

M. I had () ( Parrington:

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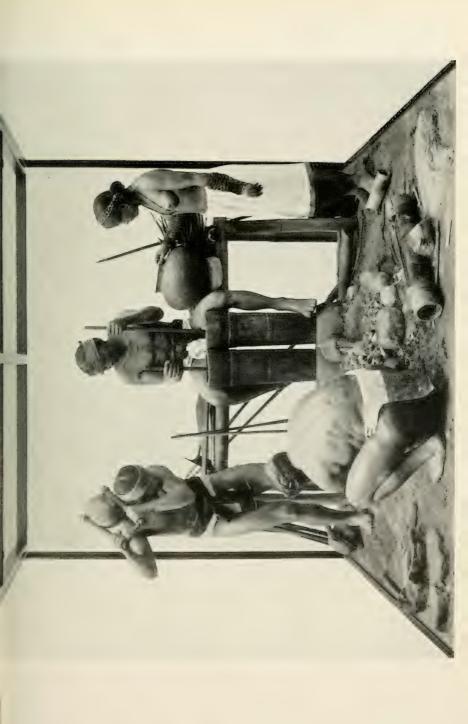
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AVRAWAR MUSEUM, Berney, In Ha. R. pert. 1989, 9.

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# ARTICLES OF INCORPORATION.

# STATE OF ILLINOIS.

DIPARIMINI OF STATE.

WILLIAM H. HINRICHSEN, Secretary of State.

La fit to Whom These Presents Shall Come, Greeting:

Therein, a Certificate dely signed and acknowledged having been for the of the Scientary of State, on the 16th day of September, A. D. 18 organization of the COLUMBIAN MUSEUM OF CHICAGO, under a continuous with the provisions of "An Act Concerning Corporations," app. April 18, 1872, and in force July 1, 1872, and all acts amendatory thereof, a continuous harmonic to hereto attailed.

Very Procedure, I. William H. Hinrich en, Secretary of State of the Statistic region of the power and duties vested in one by law, do hereby of the time at COLUMBIAN MUSEUM OF CHICAGO is a legally of Corporate number the law of this State.

Is Testimony Whereat, I hereto set my hand and cause to be affixed the Greek of the State. Done at the City of Springfield, this roth day of Septem on the year of our Lord one thousand eight hundred and ninety-three, and of Ind year in a of the United State, the one hundred and eight centh.

W. H. HINRICHSLA,

11 11;

Secretary of State

### 10 HON, WILLIAM H. HINRICHSEN,

SICRETARY OF STATE:

.-15

We, the under time I, entires of the United States, propose to form a core of a number and a total file General A sembly of the State of Himos, entitled As A to Communing Corporations," approved April 18, 1872, and all acts amendo of the transfer of such organization we hereby state as follows:

- The name of each corporation is the "COLUMBIAN MUSEUM OF CHICAGO."
- 2. The close to for which it is formed in for the accumulation and discount in at the wholge, and the prescription and exhibition of objects illustrated Act. As the tags, Sound, and History.
- The man general of the afers and Museum shall be vested in a Board of Figures 15. The stress, use of whom are to be closted every year.
- The fill wing name I persons are hereby selected as the Trustees 0 = 0 = 100 to 1 = 1 to 1 persons tensor.

- Ed. E. Ayer, Charles B. Farwell, George E. Adams, George R. Davis, Charles L. Hutchinson, Daniel H. Burnham, John A. Roche, M. C. Bullock, Emil G. Hirsch, James W. Ellsworth, Allison V. Armour, O. F. Aldis, Edwin Walker, John C. Black, and Frank W. Gunsaulus.
- 5. The location of the Museum is in the City of Chicago, County of Cook, and State of Illinois.

### (Signed),

George E. Adams, C. B. Farwell, Sidney C. Eastman, F. W. Putnam, Robert McMurdy, Andrew Peterson, L. J. Gage, Charles L. Hutchinson, Ebenezer Buckingham, Andrew McNally, Edward E. Ayer, John M. Clark, Herman H. Kohlsaat, George Schneider, Henry H. Getty, William R. Harper, Franklin H. Head, E. G. Keith, J. Irving Pearce, Azel F. Hatch, Henry Wade Rogers, Thomas B. Bryan, L. Z. Leiter, A. C. Bartlett, A. A. Sprague, A. C. McClurg James W. Scott, George F. Bissell, John R. Walsh, Chas. Fitzsimons, John A. Roche, E. B. McCagg, Owen F. Aldis, Ferdinand W. Peck, James H. Dole, Joseph Stockton, Edward B. Butler, John McConnell, R. A. Waller, H. C. Chatfield-Taylor, A. Crawford, Wm. Sooy Smith, P. S. Peterson, John C. Black, Jno. J. Mitchell, C. F. Gunther, George R. Davis, Stephen A. Forbes, Robert W. Patterson, Jr., M. C. Bullock, Edwin Walker, George M. Pullman, William E. Curtis, James W. Ellsworth, William E. Hale, Wm. T. Baker, Martin A. Ryerson, Huntington W. Jackson, N. B. Ream, Norman Williams, Melville E. Stone, Bryan Lathrop, Eliphalet W. Blatchford, Philip D. Armour.

STATE OF ILLINOIS SS.

I, G. R. MITCHELL, a NOTARY PUBLIC in and for said County, do hereby certify that the foregoing petitioners personally appeared before me and acknowledged severally that they signed the foregoing petition as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 14th day of September, 1893.

G. R. MITCHELL,

[SEAL]

JAN., 1911.

NOTARY PUBLIC, COOK COUNTY, ILL.

#### CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the Corporate members held the 25th day of June, 1894, the name of the COLUMBIAN MUSEUM was changed to FIELD COLUMBIAN MUSEUM. A certificate to this effect was filled June 26 1894, in the office of the Secretary of State for Illinois.

# CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the Corporate members held the 8th day of November, 1905, the name of the FIELD COLUMBIAN MUSEUM was changed to FIELD MUSEUM OF NATURAL HISTORY. A certificate to this effect was filed November 10, 1905, in the office of the Secretary of State for Illinois.

# AMENDED BY-LAWS.

JULY 11, 1910

### ARTICLE I.

MEMBERS.

Station t. Members shall be of five classes, Annual Members, Members, Life Members, Patrons and Honorary Members.

See: 2. Annual Members shall consist of such persons as are elected from the time by the Board of Trustees at any of its meetings, and who shall pay an annual fee of ten dellars (\$10.00), payable within thirty days after notice of election, and within thirty days after each recurring annual date. The failure of any person make such initiatory payment and such annual payments within said time of at the option of the Board of Trustees, be sufficient grounds for the forfeiture of an annual member hip.

This said annual membership shall entitle the member to:

First. — Free admittance for the member and family, to the Museum on soday.

Second. — Ten tickets every year, admitting the bearer to the Museum on partitive

Third. A copy of all publications of the Museum when requested.

Fourth. - Invitations to all special exhibits, receptions, lectures, or ellfunctions which may be given at the Museum.

Size, 3. The Corporate Members shall consist of the persons named in the articles of incorporation, and of such other persons as shall be chosen from to to time by the Board of Trustees at any of its meetings, upon the recommendation of the Executive Committee; provided, that such persons named in the articles incorporation shall, within ninety days from the adoption of these By-Laws, upon the readitor chosen as Corporate Members shall, within ninety days of the tensor pay into the treasury the sum of twenty dollars (\$20,00) or more. In future of any person to make such payment within said time, shall, at the option of the Board of Trustees, be ground for forfeiture of his corporate membership Corporate Members becoming Life Members. Patrons or Honorary Members shall be at the same place and on the same day that the annual meeting of the Board of Trustees is held.

Sic. 4. Any person paying into the treasury the sum of five hundred dollar \$500.00. Strang one time, shall, upon the unanimous vote of the Board, but Members shall be exempt from all dues.

SEC. 5. Patrons shall be chosen by the Board upon recommendation of the Executive Committee from among persons who have rendered eminent service to the Museum. They shall be exempt from all dues, and, by virtue of their election as Patrons, shall also be Corporate Members.

SEC. 6. Honorary Members shall be chosen by the Board from among persons who have rendered eminent service to science, and only upon unanimous nomination of the Executive Committee. They shall be exempt from all dues.

### ARTICLE II.

#### BOARD OF TRUSTEES.

Section 1. The Board of Trustees shall consist of fifteen members. The respective members of the Board now in office, and those who shall hereafter be elected, shall hold office during life. Vacancies occurring in the Board shall be filled at a regular meeting of the Board, upon the nomination of the Executive Committee made at a preceding regular meeting, by a majority vote of the members of the Board present.

SEC. 2. Regular meetings of the Board shall be held on the second Monday of each month. Special meetings may be called at any time by the President, and shall be called by the Secretary upon the written request of three Trustees. Five Trustees shall constitute a quorum, except for the election of officers or the adoption of the Annual Budget, when seven Trustees shall be required, but meetings may be adjourned by any less number from day to day, or to a day fixed, previous to the next regular meeting.

SEC. 3. Reasonable written notice, designating the time and place of holding meetings, shall be given by the Secretary.

### ARTICLES III.

# HONORARY TRUSTEES.

Section I. As a mark of respect, and in appreciation of services performed for the Institution, those Trustees who by reason of inability, on account of change of residence, or for other cause, or from indisposition to serve longer in such capacity, shall resign their place upon the Board, may be elected, by a majority of those present at any regular meeting of the Board, an Honorary Trustee for life. Such Honorary Trustee will receive notice of all meetings of the Board of Trustees, whether regular or special, and will be expected to be present at all such meetings, and participate in the deliberations thereof, but an Honorary Trustee shall not have the right to vote.

#### ARTICLE IV.

#### OFFICERS.

Section I. The officers shall be a President, a First Vice-President, a Second Vice-President, a Secretary, an Assistant Secretary and a Treasurer. They shall be chosen by ballot by the Board of Trustees, a majority of those present and voting being necessary to elect. The President, the First Vice-President, and the Second Vice-President shall be chosen from among the members of the Board of Trustees. The meeting for the election of officers shall be held on the second Monday of January of each year, and shall be called the Annual Meeting.

SEC. 2. The officers shall hold office for one year, or until their successors are elected and qualified, but any officer may be removed at any regular meeting of

(iii) it is a fall perform such dates as endmanly appertain to the extreme as and a fall as shall be pre-interfered by the By-Laws, or expression to the fall of Transfer.

### ARTICLE V.

#### THE TREASURER

He tell make it for each tell be contained of the fund of the Corporation of the funds in for each tell upon warrants drawn by the Director and tell upon I be the President. In the absence or inability of the Director, may be again I by the Chairman of the Finance Committee, and in the makinty of the President, may be counter igned by one of the Vice-I But no warrants hall be reach, except in conformity with a regularly; a min a graing the name of the payor and stating the occasion for the expension terms I and approved as hereinafter prescribed. It shall be no part facts of the Treasurer to be that the warrants have been usued in containing the occasion for the expension of the Treasurer to be that the warrants have been usued in containing the occasion of the treasurer to be that the warrants have been usued in containing the occasion of the containing the occasion of the containing the occasion of the occasion occasion.

Sin 2. The countries and muniments of title belonging to the Corpolar Tile placed in the controlly of some Trust Company of Chrongo to be do by the Rear Lof Trustee, which Trust Company shall collect the income and quiefficial countries as the same become due, and pay same to the Treasure Sarl Trust Company shall allow access to and deliver any or all scurities or museum of title to the point order of the following officers, namely: The Lucience of the Vice-Presidents, country with the Chairman, or one of the Vice-Presidents, country with the Chairman, or one of the Vice-Presidents.

Sig. : The Treasurer shall give bond in such amount, and with such such as 1... It is approved by the Board of Trustees.

Since, 4. All vembers executed for the payment of habilities incurred to be similar trained of the Museum, shall be verified by the Auditor, and appropriate in the time Director, and the Chairman of the Administration Committee. All true terrecents I for expenditures for the construction or reconstruction of the Museum building, or buildings, shall be verified by the Auditor and appropriate in the Chairman of the Building Committee. All venders of the contraction of the committee. All venders of the true with the investments of the Corporation, ex, in any way having to set the only when it for I of the Corporation, shall be verified by the Auditor opened for payment by the Chairman of the Finance Committee.

### ARTICLE VI

#### THE DIRECTOR

on the 1 To Bortlef Trubes half elect a Director of the Microsoft Committee on the unit has a constant half be dested. He shall have immediately in 1 openion of the Microsoft and half control the operations of Unit of the grant of the Board of Trubes and its Committee of the trubes of the Committee of the Commi

And the Markett Markett of the Anthrope of the Markett Andrews of Markett Constant, subject to the

authority of the Director. The Curators shall be appointed by the Board upon the recommendation of the Director, and shall serve during the pleasure of the Board. Subordinate staff officers in the scientific departments shall be appointed and removed by the Director upon the recommendation of the Curators of the respective Departments. The Director shall have authority to employ and remove all other employees of the Museum.

SEC. 3. The Director shall make report to the Board at each regular meeting, recounting the operations of the Museum for the previous month. At the Annual Meeting, the Director shall make an Annual Report, reviewing the work of the Museum for the previous year, which Annual Report shall be published in pamphlet form for the information of the Trustees and Members, and for free distribution in such number as the board may direct.

### ARTICLE VII.

#### AUDITOR.

Section 1. The Board shall appoint an Auditor, who shall hold his office during the pleasure of the Board. He shall keep proper books of account, setting forth the financial condition and transactions of the Corporation, and of the Museum, and report thereon at each regular meeting, and at such other times as may be required by the Board. He shall certify to the correctness of all vouchers for the expenditure of the money of the Corporation.

#### ARTICLE VIII.

#### COMMITTEES.

SECTION I. There shall be five Committees as follows: Finance, Building, Auditing, Administration and Executive.

SEC. 2. The Finance, Building and Auditing Committees shall each consist of three members, and the Administration Committee shall consist of five members. All members of these four Committees shall be elected by ballot by the Board at the Annual Meeting, and shall hold office for one year, and until their successors are elected and qualified. In electing the members of these Committees, the Board shall designate the Chairman and Vice-Chairman by the order in which the members are named in the respective Committees; the first member named shall be Chairman, the second named the Vice-Chairman, and the third named, Second Vice-Chairman, succession to the Chairmanship being in this order in the event of the absence or disability of the Chairman.

SEC. 3. The Executive Committee shall consist of the President of the Board, the Chairman of the Finance Committee, the Chairman of the Building Committee, the Chairman of the Administration Committee, the Chairman of the Auditing Committee, and two other members of the Board to be elected by ballot at the Annual Meeting.

SEC. 4. Four members shall constitute a quorum of the Executive Committee; three members shall constitute a quorum of the Administration Committee, and in all other standing Committees, two members shall constitute a quorum. In the event that, owing to the absence or inability of members, a quorum of the regularly elected members cannot be present at any meeting of any Committee, then the Chairman thereof, or his successor, as herein provided, may summon any member of the Board of Trustees to act in place of the absentee.

. . . . Procee Committee Sall have aperation of investing the same of a control of the Corporation, and the care of such real control of the property. It shall have anthony to invest, will, and first, if the approval of the Board.

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The first of the make the Board, the re-partice shall be a first the probable of the first of th

Sec. 8. The Administration Committee shall have general supervision of affairs of the Minister. The Committee shall hold one meeting each month subther Director at the Ministern within a week preceding each Monthly Monthly of a Reset of Tractors.

Sec. 9. The An liting Committee shall have supervision over all accounting and the Keeping, and full centred of the financial records. It shall cause the committee of hypercords are examined by an expert individual or firm, and attain out the report of such expert individual or firm to the Beard at the next energies the ting after such examination shall have taken place.

See, 10. The Chairman of each Committee shall report the acts and proget to the fact the next enoung regular meeting of the Board.

stell II. The Problem half be ex-omited a member of all to mittee.

C' iron of the Executive Committee. Valuation occurring in any Committee it is the ballet at any regular meeting of the Bear I.

### ARTICLE IX.

### NOMINATING COMMITTEE

on rices t. At the November meeting of the Board, each year a committee of three full beach on laylet. Said Committee hall make non-function of the Finance Committee, the Building Committee, the train Committee, and the Auditing Committee, and for two members of the site. Committee, from an angile Trainee, to be submitted at the committee, on the goal to be upon at the following Annual Meeting in I

### ARTICLE X.

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Continue of full to taken to mean the building in which the Museum as

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collections, or in storage, furniture, fixtures, cases, tools, records, books, and all appurtenances of the Institution, and the workings, researches, installations, expenditures, field work, laboratories, library, publications, lecture courses, and all scientific and maintenance activities.

SEC. 2. These By-Laws may be amended at any regular meeting of the Board of Trustees by a two-thirds vote of all the members present, provided the amendment shall have been proposed at a preceding regular meeting.



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